Warren Radio COMPANY

TOLEDO
1002 Adams Street
Phone CHERRY 8-3364

AKRON
71 S. Broadway
Phone HEMLOCK 4-2729

BATTLE CREEK
308 W. Columbia
Phone WO 2-6625

ELKHART
742 S. Main St.
Phone 3-3803

FORT WAYNE
1716 S. Harrison St.
Phone H-1232

GRAND RAPIDS
24 Logan, S. W.
Phone GLENDALE 6-5385

INDIANAPOLIS
732 N. Capitol
Phone MELROSE 4-5566

KALAMAZOO
713 Portage St.
Phone 2-5720, 2-7872

LA SALLE
242 Charter St.
Phone 4028

LIMA
222 S. Elizabeth St.
Phone 7-2011

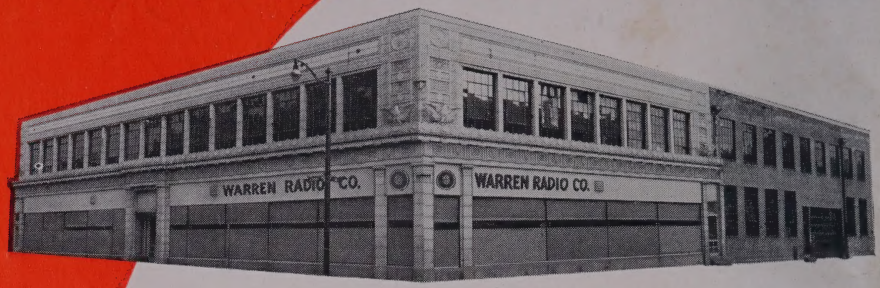
PADUCAH
455 S. 31st St.
Phone 2-4367

PEORIA
308 S. Oak St.
Phone 4-5998

RADIO AND TELEVISION

RADIO AND TELEVISION PARTS
TEST EQUIPMENT • HAM GEAR
INDUSTRIAL ELECTRONICS

Now 12 Convenient Stores



MAIN STORE AND OFFICE—TOLEDO, OHIO
1002 Adams St.

Since publishing our last catalog we are pleased to announce the addition of three new stores located in Battle Creek, Michigan, Elkhart, Indiana, and La Salle, Illinois. If you live or work in any of these areas we invite you to pay us a visit. You will find the same large complete stock of electronic parts and equipment available as at any of our other locations.

FORT WAYNE, INDIANA
1716 S. Harrison St.

In presenting you The Electronic Parts Buyer with this new edition of our Catalog we have attempted to place a complete Buying Guide of the Electronic Industry at your fingertips. If for any reason you cannot find exactly what you want, do not hesitate to order it, as the chances are we have it in stock or can get it for you promptly.

The listings contained on these pages have been especially compiled to meet the needs of Radio and TV Servicemen, Engineers, Teachers, Experimenters, Industrial Research Laboratories, Broadcast Stations, Recording Studios, Schools, Theatres, Audiophiles and Music Lovers. Regardless of what type of equipment you are interested in, we believe you will find it listed herein.

PADUCAH, KENTUCKY
455 S. 31st St

It is our aim to provide every part and component in the TV-Radio-Electronic field; your needs are an obligation we cheerfully assume. Whatever your requirements, count on Warren Radio being able to deliver promptly from our huge stock, or obtaining the material in the shortest possible time.

FOR THE FASTEST SERVICE, PLEASE DIRECT ALL ORDERS AND COMMUNICATIONS TO THE BRANCH NEAREST YOU.

LIMA, OHIO
222 S. Elizabeth St.

WARREN RADIO DISTRIBUTES SYLVANIA, COLONIAL AND DELCO REPLACEMENT PARTS. . . . WRITE FOR INFORMATION

(Not Illustrated)
ELKHART, INDIANA
742 S. Main St.

AKRON, OHIO
71 S. Broadway

Another Catalog Produced by Electronic PUBLISHING CO., INC. • Chicago 6, Illinois • Entire Contents Copyrighted 1955

Serving the Midwest

TERMS AND CONDITIONS

DELIVERY—We maintain a large stock at all stores, and with few exceptions all orders are shipped the day they are received.

MAIL ORDERS—We are fully equipped to give rapid and efficient service on all mail orders. In making out your order, please give us as much information as possible, so that it may be filled promptly and accurately. We will substitute wherever we find it necessary or advisable.

TERMS—Open accounts are granted to rated firms — terms are 2% 10th prox., net 30 days. All C. O. D. orders must be accompanied by 25% deposit unless previous arrangements have been made.

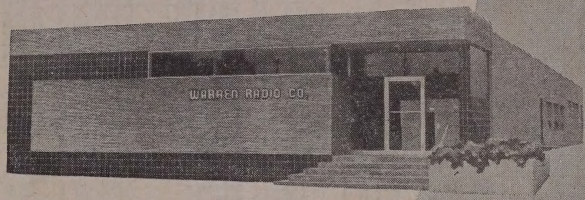
TIME PAYMENT PLAN AVAILABLE ON ALL TEST EQUIPMENT, ETC. CONVENIENT TERMS CAN BE ARRANGED.

PRICES—Prices in this catalog were current at the time of publication. Should any prices go up or down, we will bill accordingly. Be sure and check your invoice for correct prices. ALL PRICES ARE SUBJECT TO CHANGE WITHOUT NOTICE. We reserve the right to discontinue any item in this catalog.

ITEMS NOT LISTED—In compiling this catalog we must, of necessity, omit many items normally carried in stock. If you do not find what you are looking for, please drop us a card and we will be glad to send you descriptive literature of the merchandise you desire.

GUARANTEE — All merchandise listed in this catalog is covered by the standard R. E. T. M. A. Warranty, and defective merchandise will be repaired or replaced as stipulated in the warranty terms. Written permission must be secured before returning defective items.

PEORIA, ILLINOIS
308 S. Oak Street

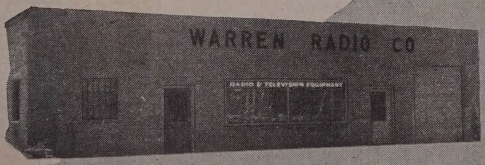


INDIANAPOLIS, INDIANA
732 N. Capitol

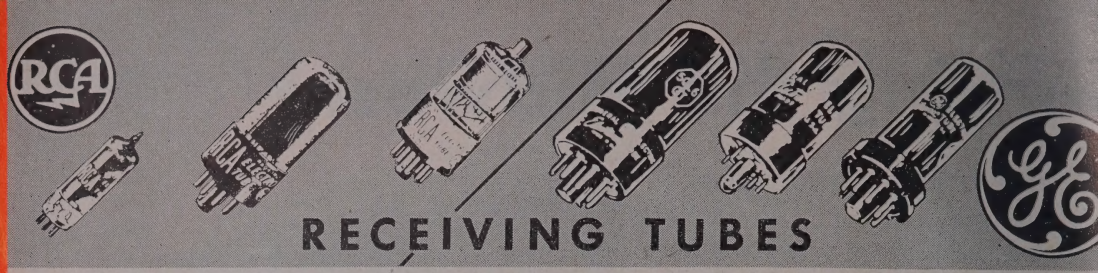
BATTLE CREEK, MICHIGAN
308 W. Columbia

KALAMAZOO, MICHIGAN
713 Portage Street

(Not Illustrated)
LA SALLE, ILLINOIS
242 Charter St.



GRAND RAPIDS, MICHIGAN
24 Logan, S. W.



RECEIVING TUBES

TUBES MAY BE ASSORTED TO OBTAIN QUANTITY PRICES

The tubes listed on these pages represent practically all types generally in demand. As new types are released we will have them immediately available. If a particular type is not listed it is due to space limitations rather than our inability to supply. We invite your orders for all types, whether listed or not. We try to maintain complete stocks at all times but the listing and pricing of a particular tube does not necessarily mean it is available. Average shipping weight per tube, 4 oz. Per 100 tubes, 25 lbs. Tubes indicated with ★ are NEW color receiving types.

TUBE TYPE	LIST PRICE	NET EACH 1-6	NET EACH 7 and up
0Y4	$4.80	$2.88	$2.40
0Z4	1.40	.84	.70
1A3	2.50	1.50	1.25
1A4P	4.05	2.43	2.03
1A5GT	2.10	1.26	1.05
1A6	3.60	2.16	1.80
1A7GT	2.50	1.50	1.25
1AC5	3.00	1.80	1.50
1AD5	3.00	1.80	1.50
1AG4	2.85	1.71	1.43
1AH4	2.85	1.71	1.43
1AJ5	2.90	1.74	1.45
1AK4	6.00	3.60	3.00
1AK5	6.00	3.60	3.00
1AX2	2.45	1.47	1.23
1B3GT/8016	2.50	1.50	1.25
1B4P/951	4.05	2.43	2.03
1B5/25S	3.60	2.16	1.80
1B7GT	3.50	2.10	1.75
1C5GT	2.60	1.56	1.30
1C6	3.50	2.10	1.75
1C7G	3.50	2.10	1.75
1D5GP	4.05	2.43	2.03
1D7G	3.60	2.16	1.80
1D8GT	4.20	2.52	2.10
1E5GP	4.05	2.43	2.03
1E7GT	4.05	2.43	2.03
1E8	3.00	1.80	1.50
1F4	2.85	1.71	1.43
1F5G	2.85	1.71	1.43
1F6	4.05	2.43	2.03
1F7G	4.05	2.43	2.03
1G4GT	2.55	1.53	1.28
1G5G	3.25	1.95	1.63
1G6GT	3.00	1.80	1.50
1H4G	2.35	1.41	1.18
1H5GT	1.95	1.17	.98
1H6G	3.50	2.10	1.75
1H6GT	3.35	2.01	1.68
1J6GT	3.50	2.10	1.75
1L4	2.15	1.29	1.08
1L6	2.75	1.65	1.38
1LA4	2.90	1.74	1.45
1LA6	2.65	1.59	1.33
1LB4	2.90	1.74	1.45
1LC5	2.65	1.59	1.33
1LC6	2.65	1.59	1.33
1LD5	2.65	1.59	1.33
1LE3	2.65	1.59	1.33
1LG5	2.65	1.59	1.33
1LH4	2.65	1.59	1.33
1LN5	2.65	1.59	1.33
1N5GT	2.40	1.44	1.20
1P5GT	2.90	1.74	1.45
1Q5GT	3.05	1.83	1.53
1R4/1294	2.85	1.71	1.43
1R5	2.25	1.35	1.13
1S4	2.55	1.53	1.28
1S5	1.85	1.11	.93
1T4	2.10	1.26	1.05
1T5GT	2.80	1.68	1.40
1T6	3.00	1.80	1.50
1U4	2.05	1.23	1.03
1U5	1.80	1.08	.90
1V	2.55	1.53	1.28
1V2	1.50	.90	.75
1V6	3.65	2.19	1.83
1X2A	2.50	1.50	1.25
1X2B	2.50	1.50	1.25
2A3	4.20	2.52	2.10
2A4G	5.00	3.00	2.50
2A5	2.30	1.38	1.15
2A6	2.85	1.71	1.43
2A7	2.85	1.71	1.43
2B7	3.50	2.10	1.75
2E5	2.85	1.71	1.43
2V3G	5.25	2.93	2.93
2X2A	4.35	2.61	2.18
3A2	2.90	1.74	1.45
3A3★	2.90	1.74	1.45

TUBE TYPE	LIST PRICE	NET EACH 1-6	NET EACH 7 and up
3A8GT	$5.00	$3.00	$2.50
3BC5	2.00	1.20	1.00
3B7/1291	5.70	3.42	2.85
3C6/XXB	3.75	2.25	1.88
3CB6	2.00	1.20	1.00
3D6/1299	4.80	2.88	2.40
3E6	4.05	2.43	2.03
3LF4	3.00	1.80	1.50
3Q4	2.20	1.32	1.10
3Q5GT	2.80	1.68	1.40
3S4	2.10	1.26	1.05
3V4	2.10	1.26	1.05
5AN8	2.85	1.71	1.43
5AT8	2.65	1.59	1.33
5AU4	2.90	1.74	1.45
5AW4	2.75	1.65	1.38
5AW5	2.70	1.62	1.35
5AZ4	1.55	.93	.78
5J6	2.35	1.41	1.18
5T4	5.00	3.00	2.50
5U4G	1.60	.96	.80
5U8	2.75	1.65	1.38
5V4G	2.55	1.53	1.28
5W4	1.65	.99	.83
5W4G	1.35	.81	.68
5W4GT	1.75	1.05	.88
5X4G	2.05	1.23	1.03
5Y3G	1.35	.81	.68
5Y3GT	1.20	.72	.60
5Y4G	1.70	1.02	.85
5Y4GT	1.55	.93	.78
5Z3	2.00	1.20	1.00
5Z4	3.30	1.98	1.65
6A3	3.90	2.34	1.95
6A5G	5.70	3.42	2.85
6A6	2.85	1.71	1.43
6A7	2.75	1.65	1.38
6A8	2.70	1.62	1.35
6A8G-GT	2.75	1.65	1.38
6AB4	1.70	1.02	.85
6AB5/6N5	2.85	1.71	1.43
6AB7/1853	3.60	2.16	1.80
6AC5GT	3.10	1.86	1.55
6AC7/1852	3.10	1.86	1.55
6AD7G	3.90	2.34	1.95
6AF4	3.45	2.07	1.73
6AF4A	3.45	2.07	1.73
6AF6G	2.85	1.71	1.43
6AG5	2.05	1.23	1.03
6AG7	3.50	2.10	1.75
6AH4GT	2.40	1.44	1.20
6AH6	3.45	2.07	1.73
6AH6V	3.50	2.10	1.75
6AJ4	4.40	2.64	2.20
6AK5	4.20	2.52	2.10
6AK6	2.35	1.41	1.18
6AL5	1.50	.90	.75
6AL7GT	3.40	2.04	1.70
6AM4	4.40	2.64	2.20
6AM8★	2.90	1.74	1.45
6AN4	4.40	2.64	2.20
6AN8★	2.85	1.71	1.43
6AQ5	1.80	1.08	.90
6AQ6	1.65	.99	.83
6AQ7GT	3.05	1.83	1.53
6AR5	1.80	1.08	.90
6AR8	3.55	2.13	1.78
6AS5	1.95	1.17	.98
6AS7G	6.55	4.87	4.87
6AS8	3.00	1.80	1.50
6AT6	1.50	.90	.75
6AT8	2.70	1.62	1.35
6AU4GT★	2.70	1.62	1.35
6AU5GT	3.25	1.95	1.63
6AU6	1.65	.99	.83
6AV5GT	3.30	1.98	1.65
6AV6	1.45	.87	.73
6AX4GT	2.35	1.41	1.18
6AX5GT	1.85	1.11	.93
6B4G	3.20	1.92	1.60

TUBE TYPE	LIST PRICE	NET EACH 1-6	NET EACH 7 and up
6B5	$3.50	$2.10	$1.75
6B6G	2.45	1.47	1.23
6B7	3.50	2.10	1.75
6B8	3.55	2.13	1.78
6B8G	3.60	2.16	1.80
6BA6	1.80	1.08	.90
6BA7	2.60	1.56	1.30
6BC5	1.95	1.17	.98
6BC7	3.20	1.92	1.60
6BD4A★	14.25	9.75	9.75
6BD5GT	3.60	2.16	1.80
6BD6★	1.80	1.08	.90
6BE6	1.85	1.11	.93
6BF5	2.20	1.32	1.10
6BF6	1.60	.96	.80
6BG6G	5.20	3.12	2.60
6BH6	2.30	1.38	1.15
6BJ6	1.95	1.17	.98
6BJ7★	2.45	1.47	1.23
6BK5	2.55	1.53	1.28
6BK7A	2.85	1.71	1.43
6BL7GT	3.40	2.04	1.70
6BN6	2.65	1.59	1.33
6BQ6G	3.55	2.13	1.78
6BQ7A	3.25	1.95	1.63
6BX7GT	3.50	2.10	1.75
6BY5G	3.25	1.95	1.63
6BY6★	1.85	1.11	.93
6BZ7	3.45	2.07	1.73
6C4	1.45	.87	.73
6C5	1.95	1.17	.98
6C5GT	2.10	1.26	1.05
6C6	2.55	1.53	1.28
6C8G	3.90	2.34	1.95
6CB6	1.95	1.17	.98
6CD6G	4.70	2.82	2.35
6CF6	2.15	1.29	1.08
6CL6	3.10	1.86	1.55
6CS6	1.85	1.11	.93
6CU6	3.80	2.28	1.90
6D6	2.55	1.53	1.28
6D8G	3.35	2.01	1.68
6DC6	2.35	1.41	1.18
6E5	2.15	1.29	1.08
6F5	2.20	1.32	1.10
6F5GT	1.85	1.11	.93
6F6	2.50	1.50	1.25
6F6G	2.00	1.20	1.00
6F6GT	2.00	1.20	1.00
6F7	3.90	2.34	1.95
6F8G	3.90	2.34	1.95
6G6G	2.85	1.71	1.43
6H6	1.80	1.08	.90
6H6GT	2.10	1.26	1.05
6J5	1.50	.90	.75
6J5GT	1.80	1.08	.90
6J6	2.35	1.41	1.18
6J7	2.30	1.38	1.15
6J7G	2.50	1.50	1.25
6J7GT	2.55	1.53	1.28
6J8G	3.70	2.22	1.85
6K5GT	2.65	1.59	1.33
6K6GT	1.65	.99	.83
6K7	2.10	1.26	1.05
6K7G	2.40	1.44	1.20
6K7GT	2.35	1.41	1.18
6K8	3.10	1.86	1.55
6K8GT	2.75	1.65	1.38
6L5G	2.85	1.71	1.43
6L6	4.35	2.61	2.18
6L6G	3.10	1.86	1.55
6L6GA	3.35	2.01	1.68
6L7	2.90	1.74	1.45
6L7G	3.40	2.04	1.70
6N7	2.95	1.77	1.48
6N7GT	2.85	1.71	1.43
6P5GT	2.45	1.47	1.23
6Q7	2.40	1.44	1.20
6Q7-GT	2.10	1.26	1.05
6R7	2.80	1.68	1.40

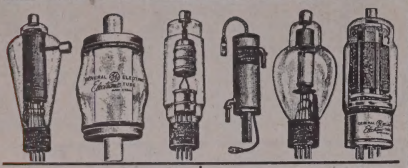
RECEIVING TUBES

TUBE TYPE	LIST PRICE	NET EACH 1-6	NET EACH 7 and up
6R7G	$2.75	$1.65	$1.38
6R7GT	2.75	1.65	1.38
6R8	3.35	2.01	1.68
6S4	1.75	1.05	.88
6S7	3.25	1.95	1.63
6S7G	3.50	2.10	1.75
6S8GT	2.65	1.59	1.33
6SA7	2.10	1.26	1.05
6SA7GT	2.10	1.26	1.05
6SB7Y	2.90	1.74	1.45
6SC7	2.15	1.29	1.08
6SD7GT	3.35	2.01	1.68
6SF5	1.85	1.11	.93
6SF5GT	1.95	1.17	.98
6SF7	2.35	1.41	1.18
6SG7	2.30	1.38	1.15
6SH7	2.35	1.41	1.18
6SH7GT	2.50	1.50	1.25
6SJ7	1.80	1.08	.90
6SJ7GT	1.65	.99	.83
6SK7	2.00	1.20	1.00
6SK7GT	2.00	1.20	1.00
6SL7GT	2.40	1.44	1.20
6SN7GT	2.15	1.29	1.08
6SQ7	1.75	1.05	.88
6SQ7GT	1.75	1.05	.88
6SR7	1.85	1.11	.93
6SR7GT	1.80	1.08	.90
6SS7	2.40	1.44	1.20
6ST7	2.80	1.68	1.40
6SV7	3.60	2.16	1.80
6SZ7	2.50	1.50	1.25
6T4	3.50	2.10	1.75
6T7G/6Q6G	3.50	2.10	1.75
6T8	2.85	1.71	1.43
6U5/6G5	2.05	1.23	1.03
6U6GT	2.45	1.47	1.23
6U7G	2.40	1.44	1.20
6U8	2.85	1.71	1.43
6V3A	3.90	2.34	1.95
6V6	3.30	1.98	1.65
6V6GT	1.80	1.08	.90
6V8	3.75	2.25	1.88
6W4GT	1.70	1.02	.85
6W6GT	2.25	1.35	1.13
6W7G	2.85	1.71	1.43
6X4	1.35	.81	.68
6X5	3.15	1.89	1.58
6X5GT	1.40	.84	.70
6X8	2.70	1.62	1.35
6Y6G	2.35	1.41	1.18
6ZY5G	2.55	1.53	1.28
7A4/XXL	2.00	1.20	1.00
7A5	2.50	1.50	1.25
7A6	2.10	1.26	1.05
7A7	2.20	1.32	1.10
7A8	2.10	1.26	1.05
7AD7	4.60	2.76	2.30
7AF7	2.40	1.44	1.20
7AG7	2.45	1.47	1.23
7AH7	2.45	1.47	1.23
7B4	2.00	1.20	1.00
7B5	1.85	1.11	.93
7B6	2.00	1.20	1.00
7B7	2.00	1.20	1.00
7B8	2.25	1.35	1.13
7C4/1203A	3.60	2.16	1.80
7C5	2.15	1.29	1.08
7C6	1.85	1.11	.93
7C7	2.15	1.29	1.08
7E5/1201	2.90	1.74	1.45
7E6	2.90	1.74	1.45
7E7	3.20	1.92	1.60
7F7	2.45	1.47	1.23
7F8	3.25	1.95	1.63
7G7/1232	3.00	1.80	1.50
7H7	2.20	1.32	1.10
7J7	3.50	2.10	1.75
7K7	3.15	1.89	1.58
7L7	3.00	1.80	1.50
7N7	2.35	1.41	1.18
7Q7	2.60	1.56	1.30
7R7	3.35	2.01	1.68
7S7	3.50	2.10	1.75
7V7	3.35	2.01	1.68
7W7	3.35	2.01	1.68
7X6	2.25	1.35	1.13
7X7/XXFM	3.30	1.98	1.65

TUBE TYPE	LIST PRICE	NET EACH 1-6	NET EACH 7 and up
7Y4	$1.80	$1.08	$0.90
7Z4	1.80	1.08	.90
10Y	3.90	2.34	1.95
12A4	2.20	1.32	1.10
12A6GT	2.90	1.74	1.45
12A7	3.90	2.34	1.95
12A8GT	2.75	1.65	1.38
12AH7GT	3.05	1.83	1.53
12AL5	1.60	.96	.80
12AQ5	1.90	1.14	.95
12AT6	1.50	.90	.75
12AT7	2.60	1.56	1.30
12AU6	1.65	.99	.83
12AU7	2.20	1.32	1.10
12AV6	1.45	.87	.73
12AV7	3.00	1.80	1.50
12AW6	2.40	1.44	1.20
12AX4GT	2.40	1.44	1.20
12AX7	2.30	1.38	1.15
12AY7	6.00	3.60	3.00
12AZ7	2.55	1.53	1.28
12B4	2.20	1.32	1.10
12BA6	1.80	1.08	.90
12BA7	2.60	1.56	1.30
12BD6	1.80	1.08	.90
12BE6	1.85	1.11	.93
12BF6	1.60	.96	.80
12BH7	2.55	1.53	1.28
12BY7	2.65	1.59	1.33
12BZ7	2.50	1.50	1.25
12C8	3.60	2.16	1.80
12F5GT	1.90	1.14	.95
12H6	2.00	1.20	1.00
12J5GT	1.80	1.08	.90
12J7GT	2.55	1.53	1.28
12K7GT	2.35	1.41	1.18
12K8	3.15	1.89	1.58
12K8GT	2.90	1.74	1.45
12L6GT	1.90	1.14	.95
12Q7GT	2.10	1.26	1.05
12S8GT	2.75	1.65	1.38
12SA7	2.10	1.26	1.05
12SA7GT	2.10	1.26	1.05
12SC7	2.50	1.50	1.25
12SF5	1.95	1.17	.98
12SF5GT	2.10	1.26	1.05
12SF7	2.40	1.44	1.20
12SG7	2.35	1.41	1.18
12SH7	2.55	1.53	1.28
12SJ7-GT	2.00	1.20	1.00
12SK7	2.00	1.20	1.00
12SK7GT	2.00	1.20	1.00
12SL7GT	2.65	1.59	1.33
12SN7GT	2.15	1.29	1.08
12SQ7-GT	1.75	1.05	.88
12SR7-GT	2.00	1.20	1.00
12V6GT	1.80	1.08	.90
12X4	1.35	.81	.68
12Z3	2.65	1.59	1.33
14A4	2.75	1.65	1.38
14A5	3.90	2.34	1.95
14A7/12B7	2.20	1.32	1.10
14AF7/XXD	2.40	1.44	1.20
14B6	2.20	1.32	1.10
14B8	2.20	1.32	1.10
14C5	3.00	1.80	1.50
14C7	2.40	1.44	1.20
14E6	2.90	1.74	1.45
14E7	3.35	2.01	1.68
14F7	2.45	1.47	1.23
14F8	3.25	1.95	1.63
14H7	2.40	1.44	1.20
14J7	3.60	2.16	1.80
14N7	2.75	1.65	1.38
14Q7	2.60	1.56	1.30
14R7	3.35	2.01	1.68
14S7	3.50	2.10	1.75
14W7	3.50	2.10	1.75
14X7	2.75	1.65	1.38
14Y4	2.45	1.47	1.23
19	3.50	2.10	1.75
19BG6G	6.00	3.60	3.00
19C8	3.35	2.01	1.68
19J6	2.50	1.50	1.25
19T8	3.15	1.89	1.58
19X8	3.10	1.86	1.55
24A	2.70	1.62	1.35
25A6	3.55	2.13	1.78

TUBE TYPE	LIST PRICE	NET EACH 1-6	NET EACH 7 and up
25A6G	$2.85	$1.71	$1.43
25AC5GT	3.00	1.80	1.50
25AV5GT	3.20	1.92	1.60
25BQ6GT	3.65	2.19	1.83
25C6G	3.00	1.80	1.50
25CD6G	6.60	3.96	3.30
25CU6	3.60	2.16	1 80
25L6	3.90	2.34	1.95
25L6GT	1.85	1.11	.93
25W4GT	2.05	1.23	1.03
25Y5	3.10	1.86	1.55
25Z5	1.80	1.08	.90
25Z6	2.60	1.56	1.30
25Z6GT	1.80	1.08	.90
26	2.25	1.35	1.13
27	1.75	1.05	.88
30	2.30	1.38	1.15
31	2.85	1.71	1 43
32	3.80	2.28	1.90
32L7GT	3.35	2.01	1.68
33	3.50	2.10	1.75
34	3.60	2.16	1.80
35/51	2.40	1.44	1.20
35A5	2.20	1.32	1.10
35B5	2.10	1.26	1.05
35C5	1.85	.93	.93
35L6GT	1.95	1.17	.98
35W4	1.20	.72	.60
35Y4	1.80	1.08	.90
35Z3	1.80	1.08	.90
35Z4GT	1.50	.90	.75
35Z5GT	1.25	.75	.63
36	2.85	1.71	1.43
37	2.85	1.71	1.43
38	2.30	1.38	1.15
39/44	2.85	1.71	1.43
41	1.95	1.17	.98
42	1.95	1.17	.98
43	2.10	1.26	1.05
45	2.10	1.26	1.05
45Z3	1.80	1.08	.90
45Z5GT	1.80	1.08	.90
46	2.90	1.74	1.56
47	3.00	1.80	1.50
49	2.85	1.71	1.43
50	5.25	3.15	2.63
50A5	2.20	1.32	1.10
50B5	1.90	1.14	.95
50C5	1.85	1.11	.93
50C6G	3.30	1.98	1.65
50CD6G	6.60	3.96	3.30
50L6GT	1.85	1.11	.93
50X6	2.20	1.32	1.10
50Y6GT	2.15	1.29	1.08
50Y7GT	2.10	1.26	1.05
53	3.60	2.16	1.80
55	2.30	1.38	1.15
56	1.90	1.14	.95
57	2.10	1.26	1.05
58	2.10	1.26	1.05
59	3.80	2.28	1.90
70A7GT	3.55	2.13	1.78
70L7GT	6.60	3.96	3.30
71A	2.40	1.44	1.20
75	2.00	1.20	1.00
76	1.70	1.02	.85
77	2.20	1.32	1.10
78	2.20	1.32	1.10
79	2.90	1.74	1.45
80	1.55	.93	.78
81	4.80	2.88	2.40
82	2.85	1.71	1.43
83	2.65	1.59	1.33
83V	3.40	2.04	1.70
84/6Z4	1.80	1.08	.90
85	2.30	1.38	1.15
89	2.30	1.38	1.15
99V	3.35	2.01	1.68
99X	3.35	2.01	1.68
117L7/M7GT	6.60	3.96	3.30
117N7GT	4.80	2.88	2.40
117P7GT	4.80	2.88	2.40
117Z3	1.65	.99	.83
117Z4GT	2.90	1.74	1.45
117Z6GT	2.95	1.77	1.48
1273	2.75	1.65	1.38
1280	2.75	1.65	1.38
5642	2.65	1.59	1.33

General Electric Industrial Tubes



TUBE TYPE	NET EA.
GL-1B24A	$ 43.00
GL-1B35A	11.10
GL-1B37A	15.00
GL-1B38	50.00
GL-1B44	38.00
GL-1B56	38.00
GL-1B63A	43.00
GL-CIJ	8.69
GL-1L21	14.00
GL-1L22	29.00
GL-1L23	29.00
GL-1L24	49.50
GL-1L25	15.75
GL-1L31	15.75
GL-1L32	14.00
GL-1L33	34.00
GL-1L36	14.00
GL-1L38	25.00
GL-1P21	50.00
GL-1P29/ FJ-401	2.95
GL-1P37	2.85
GL-1P39	1.75
GL-1P40	2.60
GL-1P41	2.80
GL-1Q26	85.00
GL-1Q26A	120.00
GL-1S21	15.50
GL-2A4G	4.80
GL-2AP1-A	10.85
GL-2B22	21.00
GL-2B23	23.50
GL-2BP1	11.00
GL-2C39	41.50
GL-2C39A	24.00
GI-2C39B	37.50
GL-2C40†	24.00
GL-2C42	21.50
GL-2C43	21.50
GL-2C46	22.00
GL-2D21	2.00
GL-2E24	4.65
GL-2E26	3.85
GL-2E30	2.60
GL-2H21	100.00
GL-2X2A	2.17
KC-1	440.00
KC-3	350.00
GL-3AP1A	19.50
GL-3B24W	11.75
GL-3BP1A	16.50
GL-3C23	12.50
GL-3KP1	16.70
GL-3MP1	22.50
GL-3UP1	27.00
3X2500A3	198.00
GL-4B32	12.00
GL-4C21	15.75
GL-4D21/ 4-125A	30.25
GL-4X150A	48.00
GL-4-250A/ 5D22	41.25
4-1000A	135.00
GL-5BP1A	22.50
GL-5C21/C6J	30.90
GL-5C24	45.00
GL-5CP1A	27.00
GL-5CP7A	31.40
GL-5FP14	29.50
GL-5FP14A	30.25
GL-5FP7A	27.40
GL-5QP4	49.50
GL-5R4GY†	2.20
GL-5UP1	19.65
GL-6AJ5†	3.50
GL-6AN5	3.65
GL-6AS6†	3.43
GL-6D4	2.85

TUBE TYPE	NET EA.
GL-6J4†	$ 8.05
GL-7BP7A	40.00
GL-7C29	130.00
GL-7D21	320.00
GL-7UP7	49.50
7VPI	22.50
GL-8D21	1300.00
GL-9C24	570.00
GL-10KP7	55.00
GL-12AY7†	3.00
GL-12DP7A	72.50
GL-12SP7	47.40
GL-12SP7B	49.50
GL-17ADP7	160.00
PJ-22	2.50
25C6G†	3.20
FG-27A	26.00
GL-35T	10.50
FG-81A	18.00
FG-97	25.00
FG-98A	27.00
GL-100TH	18.25
FG-105	48.00
GL-146	27.00
GL-152	30.00
FG-154	47.50
GL-159	160.00
FG-166	160.00
GL-169	135.00
FG-172	74.00
GL-203A	13.75
GL-207	240.00
GL-211	13.75
GL-217C	21.17
GL-218	225.00
GL-242-C	15.50
FP-265	40.00
GL-266B	218.50
FG-280	62.00
FP-285	22.00
GL-393A	13.25
FP-400	41.20
GL-411	310.00
GL-414	120.00
GL-441	4.50
GL-473	165.00
GL-502A	1.85
GL-575A	21.00
GL-592	30.25
GL-627	22.00
GL-672A	35.00
GL-673	21.00
GL-678	47.00
GL-800	11.50
GL-801A	5.60
GL-802	5.15
GL-803	24.30
GL-805	13.50
GL-806	34.25
GL-807	2.50
GL-809	4.20
GL-810	16.25
GL-811A	5.00
GL-812A	5.00
GL-813	18.00
GL-814	14.25
GL-815	8.65
GL-816	1.65
GL-826	12.50
GL-828	15.00
GL-829B	16.25
GL-830B	11.50
GL-832A	12.90
GL-833A	49.50
GL-835	19.50
GL-836	9.00
GL-837	5.80
GL-838	13.75
GL-842	4.05

TUBE TYPE	NET EA.
GL-843	$ 2.60
GL-845	13.75
GL-849	138.00
GL-851	340.00
GL-857B	218.50
GL-862A	1322.00
GL-866A	2.45
GL-868/ PJ-23	2.85
GL-869B	138.00
GL-870A	1475.00
GL-872A/ 872	8.20
GL-874	3.10
GL-880	510.00
GL-884	1.85
GL-885	2.00
GL-889A	210.00
GL-889RA	*295.00
GL-891	237.00
GL-891R	*385.00
GL-892	237.00
GL-892R	*385.00
GL-893A	664.00
GL-893AR	*1212.00
GL-895	950.00
GL-895R	*1300.00
GL-898A	1322.00
GL-914A	145.00
GL-917	4.65
GL-918	3.10
GL-919	4.65
GL-920	4.15
GL-921	2.95
GL-922	2.60
GL-923	2.35
GL-927	3.00
GL-929	1.50
GL-930	2.45
GL-931A	8.60
GL-935	7.80
GL-955†	3.60
GL-956†	7.00
GL-957†	4.90
GL-1000T	137.50
GL-1612	3.00
GL-1613	2.45
GL-1614	2.55
GL-1616	8.65
GL-1619	2.50
GL-1620	6.25
GL-1621	1.95
GL-1622	2.50
GL-1623	4.05
GL-1624	4.00
GL-1625	2.65
GL-1629	1.40
GL-1633†	1.95
GL-1850A	565.00
GL-2050	1.85
GL-5513	275.00
GL-5516	7.95
GL-5518	525.00
GL-5544	27.00
GL-5545	35.00
GL-5549	370.00
GL-5550/ GL-415	50.00
GL-5551/ FG-271	72.00
GL-5552/ FG-235A	110.00
GL-5553/ FG-258A	240.00
GL-5554/ FG-259B	171.50
GL-5555/ FG-238B	333.50
GL-5556/ PJ-8	13.50
GL-5557/ FG-17	8.50
GL-5558/ FG-32	15.50
GL-5559/ FG-57	22.00
GL-5560/ FG-95	28.00

TUBE TYPE	NET EA.
GL-5561/ FG-104	$ 40.00
GL-5664/ GL-507	870.00
GL-5581	2.25
GL-5588	120.00
GL-5593	87.50
GL-5610	2.25
GL-5620/ FB-50	14.50
GL-5621/B6	13.50
GL-5622/B25	12.50
GL-5623/B47	13.50
GL-5624/B46	13.50
GL-5625/KC4	225.00
GL-5626/ FA-15	22.50
GL-5627/ FA-6	27.00
GL-5628/ FA-13	26.00
GL-5629/ FA-14	21.00
GL-5630	1000.00
GL-5632	12.15
GL-5651	2.30
GL-5654†★	3.00
GL-5662	3.20
GL-5663	1.90
GL-5670†★	4.85
GL-5674	100.00
GL-5680	214.00
GL-5681	1780.00
GL-5686†★	3.30
GL-5687	4.90
GL-5691	8.45
GL-5692	8.15
GL-5693	6.40
GL-5696	1.90
GL-5718★	6.85
GL-5719★	6.85
GL-5720/ FG-33	23.00
GL-5725†★	3.25
GL-5726†★	1.45
GL-5727★	2.70
GL-5728/ FG-67	26.00
GL-5739/ FP-62	49.50
GL-5740/ FP-54	88.00
GL-5741/ FP-85A	85.00
GL-5742/ PJ-7	25.00
GL-5743/ PJ-21	25.00
GL-5749†★	2.00
GL-5750†★	2.50
GL-5751†★	3.35
GL-5762	195.00
GL-5763	1.93
GL-5779	80.00
GL-5797★	13.50
GL-5798★	17.45
GL-5814A†★	3.25
GL-5820	1200.00
GL-5822	130.00
GL-5824	3.35
GL-5830/ FG-41	200.00
GL-5840★	10.30
GL-5844	2.20
GL-5855	70.00
GL-5879	1.7 5

TUBE TYPE	NET EA.
GL-5881	$ 3.50
GL-5894A	20.00
GL-5896A★	8.50
GL-5899★	10.95
GL-5902★	12.60
GL-5921	40.00
GL-5922	40.00
GL-5948	490.00
GL-5963	1.40
GL-5964	1.50
GL-5965	2.25
GL-5973	310.00
GL-6005†★	3.55
GL-6011	13.00
GL-6017	340.00
GL-6019	620.00
GL-6021A★	11.90
GL-6039	620.00
GL-6044	56.00
GL-6046	1.15
GL-6072†★	4.55
GL-6087†★	5.25
GL-6096/CT†	4.95
GL-6111A★	12.55
GL-6112A★	12.20
GL-6130	18.00
GL-6134†★	5.45
GL-6135†★	1.90
GL-6136†★	2.20
GL-6137†★	2.20
GL-6146	4.90
GL-6159	4.90
GL-6166	905.00
GL-6182	2100.00
GL-6183	680.00
GL-6201†★	4.15
GL-6202†★	3.17
GL-6203†★	3.97
GL-6215	3.00
GL-6228/506	3300.00
GL-6237	10,000
GL-6238	10,000
GL-6239	10,000
GL-6240	10,000
GL-6241	10,000
GL-6242	10,000
GL-6251	2200.00
GL-6265†★	4.00
GL-6283	155.00
GL-6299	74.00
GL-6301	120.00
GL-6346	77.75
GL-6347	115.75
GL-6348	245.75
GL-6386†★	7.15
GL-6452	93.00
GL-6463	2.85
GL-6485†	1.60
GL-6504	2100.00
GL-6509	420.00
GL-6512	202.50
GL-6513	364.50
GL-6515	938.00
GL-8000	14.50
GL-8002	160.00
GL-8002R	190.00
GL-8005	8.55
GL-8008	8.20
GL-8013A	10.30
GL-8020	24.00
GL-8025A	12.35
GL-9001†	3.95
GL-9002†	2.80
GL-9003†	3.75
GL-9004†	2.30
GL-9005†	3.45

RENEWAL PRICE, FORCED AIR TUBES

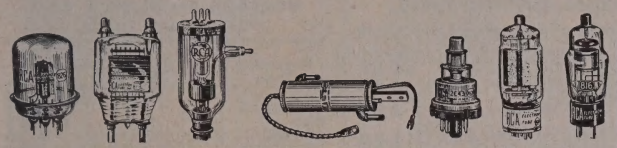
Tube Type	Net Each	†† Crate Credit
GL-889R-A	$ 295.00	NONE
GL-891-R	385.00	$10.00
GL-892-R	385.00	10.00
GL-893A-R	1212.00	40.00
GL-895-R	1300.00	35.00

*Price includes tube and radiator for forced air cooling. ††In good condition.
†These tube types subject to Federal Excise Tax. Tax is included in price shown.
★High reliability. "5 STAR" tubes.

224-54E

RCA Electron Tubes

POWER · CATHODE-RAY · PHOTO



TUBE TYPE	NET EA.	TUBE TYPE	NET EA.	TUBE TYPE	NET EA.
1P21	$ 50.00	7WP4	630.00	908-A	24.40
1P22	14.75	8D21	1300.00	912	155.00
1P28	22.00	9C21	922.00	914-A	145.00
1P29	2.95	9C22*	1300.00	917	4.65
1P37	2.85	9C25*	1080.00	918	3.10
1P39	1.75	10KP7	55.00	919	4.65
1P40	2.60	10SP4	64.50	920	4.15
1P41	2.80	10Y	3.95	921	2.65
1P42	11.00	12DP7-A, B	72.50	922	2.60
2AP1-A	10.85	16ADP7	55.00	923	2.35
2BP1	11.00	105	48.00	924	3.30
2BP11	12.50	172	65.00	925	2.85
2C39A	25.00	207	240.00	926	2.95
2E24	4.65	211	13.75	927	2.70
2E26	3.85	217-C	21.17	928	3.35
2F21	144.00	575-A	20.00	929	1.50
2J50	192.00	579-B	15.00	930	2.45
2K26	56.50	627	22.00	931-A	8.60
2X2-A	2.15	629	13.00	934	3.40
3AP1-A	19.50	672-A	35.00	935	7.80
3B25	5.90	673	20.00	1616	8.65
3B28	7.15	676	55.00	1623	4.05
3BP1-A	16.50	677	55.00	1624	4.00
3C23	12.50	800	11.50	1625	2.65
3C33	21.25	801-A	5.60	1699	#
3C45-See 6130/3C45		802	5.15	1850-A	565.00
3D22	16.40	803	24.30	1854-See 6474/1854	
3E22	8.30	804	17.50	1904-See 5728/FG-67	
3E29	20.25	805	13.50	1946	10.90
3FP7-A	23.00	806	34.25	1947	13.15
3JP1	20.50	807	2.50	1949	11.30
3JP7	23.50	808	12.85	1950	7.80
3KP1	16.70	809	4.20	2020	88.00
3KP11	18.60	810	16.25	5527	150.00
3MP1	22.50	811-A	5.00	5550	45.00
3RP1	16.45	812-A	5.00	5551	72.00
3RP4	18.50	813	18.00	5552	110.00
4-65A	20.00	814	14.25	5553-A	239.00
4-125A/4D21	30.25	815	8.65	5554	171.50
4-250A/5D22	41.25	816	1.65	5555	333.50
4-1000A	132.00	826	12.50	5556	13.50
4C33	182.75	827-R	195.00	5557	8.50
4E27/8001	24.50	828	15.00	5558	15.50
4E27A/5-125B	35.75	829-B	16.25	5559	22.00
4J50	350.00	830-B	11.50	5560	28.00
4J52	270.00	832-A	12.90	5561	40.00
4X150A	41.50	833-A	49.50	5563-A	47.00
4X500A	121.00	834	14.50	5581	2.25
5ABP1	29.50	836	9.00	5582	4.30
5ABP7	35.00	837	5.80	5583	3.70
5ABP11	35.25	838	13.75	5584	4.15
5AUP24	93.00	841†	4.85	5588	120.00
5AYP4	47.50	842	4.05	5592*	1229.00
5AZP4	81.50	845	13.75	5652	6.55
5BP1-A	23.80	846	250.00	5653	1.15
5CP1-A	27.00	849	138.00	5671*	1250.00
5CP7-A	31.40	851	340.00	5713	176.00
5CP11-A	31.40	857-B	218.50	5728/FG-67 1904	26.00
5CP12	31.40	860	34.50	5762/7C24	195.00
5FP4-A	41.75	861	178.25	5770	995.00
5FP7-A	27.50	862-A	1322.00	5771	543.00
5FP14	29.50	865	11.50	5786	87.50
5UP1	17.50	866-A	2.45	5819	55.00
5UP7	25.40	868	2.85	5820	1200.00
5UP11	25.40	869-B	138.00	5822	130.00
5WP11	87.00	872-A	8.20	5825	13.00
5WP15	102.00	878	12.75	5890	44.00
5ZP16	100.00	880	510.00	5894	24.75
7BP7-A	40.00	889-A	210.00	5946	115.00
7C24-See 57C2/7C24		889R-A*	295.00	6130/3C45	17.80
7CP1	30.75	891	237.00	6146	4.90
7CP4	40.00	891-R*	385.00	6159	4.90
7MP7	38.00	892	237.00	6161	115.00
7MP14	40.00	892-R*	385.00	6166	905.00
7NP4	600.00	893-A	664.00	6181	835.00
7QP4	39.50	893A-R*	1212.00	6198	315.00
7TP4	54.00	898-A	1322.00	6199	50.00
7VP1	25.00	902-A	12.50	6217	70.00

TUBE TYPE	NET EA.	TUBE TYPE	NET EA.
6293	5.65	6570	7.60
6323	7.95	6571	57.50
6326	565.00	6655	55.00
6328	9.70	8000	14.50
6342	69.00	8003	14.00
6372	344.00	8005	8.55
6383	122.00	8008	8.20
6405/1640	7.15	8012-A	15.50
6448	4200.00	8013-A	10.30
6472	10.20	8020	24.00
6474/1854	1700.00	8025-A	12.35
6524	15.75		

†Subject to Federal Excise tax which is included.
#Price upon request.
*The following credits currently apply when radiators or crates are returned prepaid in acceptable condition, to the address shown on our return authorization.

Tube Type	Rad. Credit	Crate Credit
9C22, 9C25	$ 65.00	$35.00
889R-A	20.00	.....
891-R, 892-R	20.00	10.00
893A-R	110.00	40.00
5592	45.00	25.00
5671	65.00	35.00

INDUSTRIAL RECEIVING TYPES

TUBE TYPE	NET EA.	TUBE TYPE	NET EA.
OA2	$ 1.26	1631	$ 3.20
OA3	1.27	1632	3.35
OA4-G	1.40	1633	2.00
OB2	1.39	1634	1.55
OC3	1.27	1635	2.00
OD3	1.27	1654	5.95
1C21	3.85	1945	135.00
2A4-G	2.40	2050	1.85
2C21/1642	2.15	5618	4.12
2C40	26.80	5651	2.24
2C43	21.50	5654	3.50
2D21	2.00	5675	13.55
3A4	1.20	5690	9.35
3A5	1.30	5691	8.45
5R4-GY	1.72	5692	8.15
6AG7-Y	2.35	5693	6.40
6AS6	3.46	5696	1.90
6F4	7.00	5718	5.95
6J4	6.22	5719	5.85
6L4	6.80	5726	1.65
6SJ7-Y	1.35	5734	18.00
12A6	1.64	5751	3.80
12AY7	3.23	5763	1.93
12L8-GT	2.35	5814-A	3.90
12SW7	1.45	5823	1.32
12SX7-GT	1.75	5840	8.85
12SY7	1.60	5876	13.55
26A6	3.20	5879	1.75
26A7-GT	6.75	5893	19.40
26C6	2.20	5915	1.20
26D6	3.00	5963	1.40
502-A	1.85	5964	1.50
884	1.85	5965	2.55
885	2.00	6012	5.55
954	6.95	6073	3.40
955	4.00	6074	3.85
956	7.20	6080	6.00
957	4.90	6082	5.30
958-A	7.50	6101	8.00
959	7.95	6173	12.10
991	.87	6197	2.55
1609	14.50	6211	2.55
1612	3.00	6263	20.00
1613	2.45	6264	20.00
1614	2.55	6417/1640	1.93
1619	2.50	9001	4.00
1620	6.25	9002	2.85
1621	1.95	9003	3.80
1622	2.50	9004	2.85
1626	1.85	9005	4.05
1629	1.40	9006	1.90

Prices shown include Federal Excise Tax where applicable.

RAYTHEON Raytheon Industrial Tubes

SUBMINIATURE TUBES

Ray. Type	Type	Application	Net
1AD4	Pent.	RF Amp.	$ 2.05
1AE4	Pent.	RF Amp.	1.55
1AG5	Di-Pent.	Det.-Amp.	1.90
2E31	Pent.	RF Amp.	2.12
2E32	Pent.	RF Amp.	2.12
2E35	Pent.	Pwr. Amp.	2.17
2E36	Pent.	Pwr. Amp.	2.17
2G21	Tri-Hep.	Converter	2.20
2G22	Tri-Hep.	Converter	2.20
CK501AX	Pent.	Volt-Amp.	2.55
CK502AX	Pent.	Pwr. Amp.	2.10
CK503AX	Pent.	Pwr. Amp.	2.05
CK506AX	Pent.	Pwr. Amp.	1.50
CK510AX	2-Tet.	Volt-Amp.	2.55
CK511AX	Pent.	Volt-Amp.	2.38
CK512AX	Pent.	Volt-Amp.	2.15
CK518AX	Pent.	Pwr. Amp.	2.15
CK525AX	Pent.	Pwr. Amp.	3.60
CK526AX	Pent.	Pwr. Amp.	1.90
CK527AX	Pent.	Pwr. Amp.	2.55
CK528AX	Pent.	Pwr. Amp.	1.58
CK529AX	Pent.	Pwr. Amp.	1.98
CK531DX	Pent.	Pwr. Amp.	2.55
CK532DX	Pent.	Pwr. Amp.	2.55
CK533AX	Pent.	Pwr. Amp.	2.40
CK534AX	Pent.	Volt-Amp.	2.45
CK535AX	Pent.	Pwr. Amp.	2.15
CK536AX	Pent.	Pwr. Amp.	1.58
CK537AX	Pent.	Pwr. Amp.	2.60
CK539DX	Pent.	Pwr. Amp.	2.55
CK541DX	Pent.	Pwr. Amp.	2.55
CK542DX	Pent.	Pwr. Amp.	2.55
CK542DXS	CK542DX Shielded		2.65
CK544DX	Pent.	Pwr. Amp.	2.55
CK546DX	Pent.	Pwr. Amp.	2.55
CK547DX	Pent.	Pwr. Amp.	2.55
CK548DX	Pent.	Pwr. Amp.	2.55
CK549DX	Pent.	Volt-Amp.	2.05
CK574AX	Pent.	RF Amp.	2.25
CK1034	Radiation Counter		7.50
CK1036	Radiation Counter		7.50
CK1037	Radiation Counter		7.50
CK1038	Radiation Counter		7.50
CK1039	Radiation Counter		7.50
CK5672	Pent.	Pwr. Amp.	1.60
CK5676	Triode	UHF Osc.	1.90
CK5677	Triode	UHF Amp.	3.70
CK5678	Pent.	RF Amp.	1.60
CK5702	Pent.	RF Amp.	5.85
CK5702WA	Pent.	RF Amp.	9.30
CK5703	Triode	UHF Osc.	2.20
CK5703WA	Triode	UHF Osc.	8.75
CK5704	Diode	Detector	2.85
CK5744	Triode	Amp.HF Osc	2.70
CK5744WA	Triode	Amp.HF Osc	8.75
CK5783	G. Di.	Volt-Ref.	5.60
CK5783WA	Gas Di.	Volt. Ref.	7.90
CK5784	Pent.	Mixer-gated	7.50
CK5784WA	Pent.	Mxr.-gtd. A.	11.85
CK5785	Diode	HW Rect.	2.35
CK5787	G. Di.	Volt. Reg.	7.50
CK5787WA	Gas Di.	Volt. Reg.	11.85
CK5829	2-Di.	Detector	4.80
CK5829WA	Dble. Di.	Detector	12.40
CK5851	Bm. Pen.	RF P. A.	8.70
CK5854	Pent.	Pwr. Amp.	2.05
CK5875	Pent.	Rdosonde	2.10
CK5884	2-Tet.	Electrom.	14.00
CK5886	Pent.	Electrom.	4.50
CK5889	Pent.	Electrom.	11.30
CK5967	2-Tri.	RF Amp.	15.00
CK5969	2-Tet.	RF Pwr. Am.	15.00
CK5971	Triode	Osc.	5.25
CK5972	Pent.	RF Amp.	5.25
CK5975	Triode	Amp. Osc.	3.75
CK5995	Diode	HW Rect.	7.50
CK6021	Dble.Tri.	Volt. Amp.	9.10
CK6029	Triode	UHF Osc.	4.50
CK6050	Triode	UHF Osc.	3.70
CK6051	Pent.	Pwr. Amp.	4.50
CK6088	Pent.	Pwr. Amp.	2.60
CK6092	Pent.	Pwr. Amp.	5.25
CK6112	Dble.Tri.	Volt Amp.	9.40
CK6147	Bm Pen.	RF Pwr. Am.	9.60
CK6152	Triode	Amp. Osc.	8.70
CK6213	Gas. Di.	Volt Ref.	7.50
CK6245	Pent.	UHF Amp.	11.85
CK6247	Triode	Low μph A.	14.65
CK6286	Triode	Osc. Amp.	2.05
CK6397	Bm Pen.	RF-AF A.	8.50
CK6418	Pent.	Pwr. Amp.	2.55
CK6419	Pent.	Volt. Amp.	2.05
CK6436	Gas Di.	GM Counter	7.50
CK6437	Gas Di.	Volt. Reg.	7.50
CK6438	Gas Di.	Volt. Reg.	7.50

SPECIAL PURPOSE TUBES

Ray. Type	Construction	Application	Net Each
OA4G	Gas Tri.	Relay Serv.	$1.45
2C33/RX233A	Gas Tri.	Cont. Thyra.	5.00
2C34/RK34	Dbl.-Tri.	Amp.	3.50
2C52	Dbl.-Tri.	Volt. Amp.	11.30
3A4	Pentode	RF-AF	1.20
3A5	Dbl.-Tri.	RF Amp.	1.25
3B4	Bm.Pent.	RF Amp.	3.60
6AJ5	Pentode	RF-AF Amp.	3.50
6AN5	Pentode	RF-AF PA	3.65
6AR6	Pentode	Pwr. Amp.	5.75
6AS6	Pentode	Mxr-gated Amp.	3.25
6AS7G	Dbl.-Tri.	DC Amp.	4.87
6J4	Triode	UHF Amp.	8.05
7AK7	Pentode	Mxr-gated Amp.	10.50
RK61	Gas Tri.	Cont. Thyra.	3.30
310A	Pentode	RF-AF Amp.	12.45
884	Gas Tri.	Cont. Thyra.	1.85
885	Gas Tri.	Cont. Thyra.	2.00
954	Pentode	UHF Amp.	5.65
955	Triode	UHF Osc.	3.60
956	Pentode	UHF Amp.	7.00
957	Triode	UHF Osc.	3.75
CK1089	Gas Tetr.	Cont. Thyra.	5.30
2050	Gas Tetr.	Cont. Thyra.	1.85
2051	Gas Tetr.	Cont. Thyra.	1.90
CK5608A	Dbl.-Tri.	Sp. Eqpmt.	3.15
CK5656	Dbl-Tetr.	RF Pwr. Ap.	20.55
CK5670	Dbl-Tetr.	RF Per. Ap.	4.85
CK5694	Dbl.-Tri.	Power Amp.	3.75
CK5910	Pentode	Radiosonde	.95
9001	Pentode	UHF Amp.	3.40
9002	Triode	UHF Osc.	2.50
9003	Pentode	UHF Amp.	3.40
9005	Diode	UHF	3.45
9006	Diode	UHF	1.60

TRANSMITTING TUBES

Raytheon Type	Constr'n	Application	Net Each
2E24	Pentode	VHF Osc. Amp.	$ 4.19
2E26	Pentode	VHF Osc. Amp.	3.47
2E30	*Pentode	RF-AF Amp.	2.60
RK3B26	Diode	Clipper	18.00
RK4B31	Diode	Clipper	35.25
4C35	Thyra.	Modulator	28.75
RK4D22	Tetrode	RF Osc. Amp.	27.50
RK4D32	*Tetrode	RF Osc. Amp.	27.50
5D23/RK65	Tetrode	RF Amplifier	45.00
6D21	Tetrode	Pulse Amp.	320.00
5K715C	Tetrode	Pulse Modul.	63.00
RK807	*Tetrode	RF Osc. Amp.	2.50
RK811A	Triode	RF-AF Amp.	5.00
RK812A	Triode	RF-AF Amp.	5.00
RK813	*Tetrode	RF Osc. Amp.	18.00
RK814	*Tetrode	RF Osc. Amp.	14.25
RK829B	†Tetrode	RF Osc. Amp.	16.25
RK832A	†Tetrode	RF Osc. Amp.	12.90
RK837	RF Pent	RF Osc. Amp.	5.80
RK1625	*Tetrode	RF Osc. Amp.	2.65
RK5763	*Pentode	RF Osc. Amp.	1.75
CK6146	*Pentode	RF-AF Amp.	4.15

*Beam type. †Dual Beam type.

RECTIFIER TUBES

Raytheon Type	Type	Net Each
BH	Full Wave-Gas	$4.50
OZ4A/CK1003	Full Wave-Gas	1.00
2X2A	½-Wave-Hi-Vac.	2.17
RK3B24W	½-Wave-Hi-Vac.	11.25
RK3B29	½-Wave-Hi-Vac.	12.60
5R4GY	Full Wave	1.85
RK72	½-Wave-Hi-Vac.	11.25
RX120	½-Wave-Mer.Ar.	29.00
RX120A	½-Wave-Mer.	30.50
RX212	½-Wave-Mer.	35.75
RX215	Full Wave-Mer.	24.30
RK816	½-Wave-Mer.	1.65
RK866A	½-Wave-Mer.	2.10
RK872A	½-Wave-Mer.	8.20
CK1005	Full Wave-Gas	1.00
CK1006	Full Wave-Gas	5.85
CK1007	Full Wave-Gas	1.10
CK1012	Full Wave-Gas	3.10
CK1024	Full Wave-Gas	3.60
CK1027/6174	Use CK6174	3.40
CK1028	Half Wave	22.50
CK5517	½-Wave-Gas	3.40

VOLTAGE REGULATOR AND REFERENCE TUBES

Raytheon Type	Fil.	Op. Volt	Max. Reg. (v.)	Net Each
OA2	Cold	150	6	$1.26
OA3/VR75		75	5	1.32
OB2		108	4	1.39
OB2WA		108	2	4.75
OB3/VR90		90	8	4.75
OC3/VR105		105	4	1.32
OD3/VR150		150	5.5	1.32
CK1017		700	20	11.30
CK1022		1000	20	15.00
CK1039		1200	25	7.50
CK5651		82–92	3	2.30
CK5651WA		82–92	3	4.00
CK5783		82–92	3	5.60
CK5783WA		83–89	3	7.90
CK5787		100	6	7.50
CK5787WA		100	4	11.85
CK5962		700	15	11.30
CK6213		127–133	2	7.50
CK6437		700	15	7.50
CK6438		900	15	7.50

SUBMINIATURE CATHODE-TYPE RELIABLE TUBES

Raytheon Type	Application	Net Each
CK5702WA	RF Pentode	$ 9.30
CK5703WA	Medium-mu Triode	8.75
CK5744WA	High-mu Triode	8.75
CK5783WA	Gas Diode	7.90
CK5784WA	Pentode	11.85
CK5787WA	Gas Diode	11.85
CK5829WA	Double Diode	12.40
CK6021	Double Triode	9.10
CK6111	UHF Double Triode	9.00
CK6112	High-mu Dble. Triode	9.40
CK6152	Low-mu Triode	8.70
CK6245	UHF Pentode	9.10
CK6247	Low-μph Triode	14.65

RADIATION COUNTER TUBES
(GEIGER-MUELLER)

These tube types are all glass thin-wall, self-quenching counter tubes for detecting beta and gamma radiation. They are designed for use in battery operated survey instruments and Prospector's Units for locating radioactive material.

Raytheon Type	Operating Volts, DC	Thres. Volts, DC Max.	Net Each
1B90	Thres. +50	1100	$14.25
CK1018	850-950	850	14.25
CK1019	875-975	880	14.25
CK1020	850-950	850	12.00
CK1021	850-950	850	11.50
CK1023	850-950	850	11.50
CK1026	850-950	760	3.35
CK1029	850-950	850	15.00
CK1032	1050-1200	1000	3.35
CK1034	700	585	7.50
CK1044	700	*	7.50

*Ib. .50 μa. at 500 roentgens per hour.

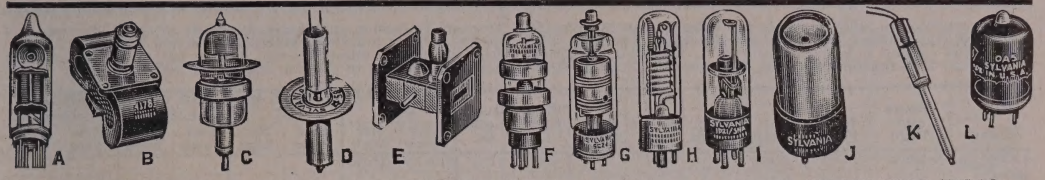
RELIABLE AND RUGGED TUBES

Raytheon Type	Type	Application	Net Each
5R4WGY	Rect.	Full Wave	$7.25
6AN5WA	Pentode	RF-AF*	11.30
6AK5W	Pentode	RF Amp.	3.05
6AL5W	Dble. Di.	Detector	1.55
6AS6W	Pentode	Mixer	4.75
6C4W	Triode	Osc.-Amp.	8.05
6C4WA	Triode	Osc.-Amp.	12.00
6J5WGT	Triode	V. Ampl.	4.85
6J6W	Dble. Tri.	UHF Osc.	3.05
6J6WA	Dble. Tri.	UHF Osc.	8.95
6SN7WGT	Dble. Tri.	Volt.Amp.	2.45
6X4W	Dble. Tri.	Full Wave	1.80
6X5WGT	Rect.	Full Wave	1.89
1215WGT	Triode	Volt.Amp.	4.50
CK5651WA	Gas Diode	Volt. Ref.	4.00
CK5670WA	Dble. Tri.	Volt.Amp.	8.70
CK5654	Pentode	RF Amp.	3.15
CK5686	Pentode	RF-AF P.	3.30
CK5725	Pentode	Mixer	3.25
CK5726	Dble. Di.	See 6AL5	1.45
CK5749	Pentode	RF Amp.	2.00
CK5750	Heptode	Converter	2.50
CK5751	Dble. Tri.	Volt.Amp.	3.35
CK5814A	Dble. Tri.	Volt.Amp.	3.25
CK5814WA	Dble. Tri.	Volt.Amp.	5.50
CK6005	Bm. Pent.	AF Amp.	3.55
CK6096	Pentode	RF Amp.	8.25
CK6135	Triode	Osc.-Amp.	2.75

*Power Amplifier.

389X-55A

Sylvania Special Purpose Tubes



SUBMINIATURE TUBES

DIODES

Syl. No.	Description	Use	Net Each
5641	Sgle. Diode	½-wave rect.	$8.35
5647	UHF 1-Diode	Detector*	8.35
6110	UHF 2-Diodes	Detector*	10.00

*Or ½-wave rectifier.

SPECIAL PURPOSE TYPES

5643	Tetr. Thyr'n	Relay Tube	12.00
5644	Cold Cath. Di.	V.R.	12.00

TRIODES

5718	UHF Med. Mu	Amplifier†	$5.95
5719	High Mu	Amplifier	5.85
5977	Medium Mu	Amplifier	9.10
5987	Low Mu, Pwr.	Amplifier	12.85
6021	Medium Mu*	Amplifier	9.10
6111	Medium Mu*	Amplifier	9.00
6112	High Mu*	Amplifier	9.40

*Double triode. †Or UHF Oscillator.

PENTODES

5636	UHF Pentode	Amplifier*	12.85
5639	Video Pent.	Amplifier	12.85
5840	UHF Sharp C-O	Amplifier	8.85
5899	UHF Semi-Rem.	Amplifier	8.90
5902	Audio Bm. Pwr.	Pwr.Amp†	9.00
6205	UHF Sharp C-O	**	12.45
6206	UHF Semi-Rem.	***	12.85

*Or mixer. †1-tube, Class A. **Identical to to 5840 except for external suppressor. grid connection. ***Identical to 5899 except for external suppressor grid con.

MAGNETRONS—FIG. B

These magnetrons operate in the SHF band at peak power levels ranging from 7 to 300kw and at average power ranging from 14 to 300 watts. Frequency range, except Type 4J78, 9345-9405mc; Type 4J78, 9003-9168mc. All are supplied with magnet. Write for Bulletin EC-37C.

Syl. No.	Pulsed Power Out (kw)	Average Power Out (w)	Net Each
2J42	7-14	14	$109.60
2J55	40-50	40	150.00
4J50	300	225	296.80
4J52	65-120	65	263.20
4J78	300	225	812.00

ROCKET TUBES—FIG. C

Sylvania rocket tubes are planar-electrode disc-seal triodes for use as oscillators and amplifiers at frequencies up to 3300mc. Design permits broad band operation.

Type 2C36—Pulse-modulated oscillator for frequencies to 1750 mc. Net Each **$40.65**

Type 2C37—C.W. Oscillator up to 3300 mc. Plate disc is flat, grid disc is folded. Net Each **$40.65**

Type 6BA4—UHF-TV low noise RF amplifier. Net Each **$13.75**

Type 5764—CW or pulse-modulated oscillator for use to 3300 mc. Net Each **$62.50**

Type 5765—C.W. Oscillator without external feedback from 900-2900 mc. Net Each **$62.50**

Type 5767—C.W. Oscillator for use up to 3300 mc. Both discs folded. Net **$62.50**

Type 5768—C.W. amplifier-multiplier up to 3000 mc. Net Each **$62.50**

Type 6018—Pulse-modulated oscillator to 1200 mc. Net Each **$62.50**

Type 5675—Med. mu CW oscillator, amplifier or freq. mult. to 3000 mc. Net Each **$15.20**

Type 6503—Ruggedized higher power 2C37 ..... **Write for Price**

Write for Bulletin ES-4810.

PENCIL TUBES—FIG. D

Type 5794—Intended for use at 1680 mc as a C.W. oscillator. Special 5.2 volt heater. Net Each **$12.50**

CW Osc., ampl. or freq. mult. to 1700 mc.

Type 5876—High mu. Net Each **$13.55**

Type 6263—High power low mu. Net Each **18.35**

Type 6264—High power medium mu. Net Each **18.35**

TR'S AND ATR'S—FIG. E

Syl. Type	Frequency Range (mc)	Insertion Loss (db)	Net Each
1B24A	8490-9600	.85-1.50	$ 26.90
1B40	1045-1155	1.0	4.05
1B55	3360-3740	0.7	221.20
1B56	2783-2982	0.7	31.25
1B58	2689-2939	0.5	100.80
1B63A	8490-9578†		
	8565-9487#	0.7 max.	35.65
5853	2900-3200	0.7	106.40
5865	5450-5825#	0.8	184.80
6081	5400-5850	0.8‡	50.00

†1.9 VSWR. ‡1.4 VSWR. ‡Arc loss.

Syl. Type	Frequency Range (mc)	Trans. (kw/Min)	Net Each
1B35A	9000-9600	5	$ 6.90

KLYSTRONS—FIG. F

Types 6BL6 and 6BM6 are intended for use as C.W. oscillators. They are of the separate cavity type, with oscillation frequency depending on external tuning. 6BM6A, 5836 and 5837 are suitable for either C.W. or pulsed operation. Write for catalog EC-40B.

Sylvania Type	Frequency Range (mc)	Mode	Net Each
6BL6	1600-4000	1¾	$50.00
	2100-4500	2¾	
	3600-6500	3¾	
6BM6	550-3800	1¾, 2¾, 3¾	62.50
6BM6A	550-3800	1¾, 2¾, 3¾	68.75
5836	1600-4000	1¾	81.20
	2100-4500	2¾	
	3600-6500	3¾	
5837	550-2300	1¾	81.20
	1100-3000	2¾	
	1500-3800	3¾	

HYDROGEN THYRATRONS—FIG. G

Serve as drivers for pulsing magnetrons and other oscillators, and as high-speed switches. 6μsec. pulse width.

Syl. Type	Pk. Forward Anode Volts	Pk. Forward Anode Amps	Av. Ma.	Net Each
4C35	8kv max	90 max	100	21.35
5C22	16kv max	325 max	200	43.75

FLASH TUBES—FIG. H

These are "electronic photoflash" tubes of the gas-discharge type, widely-used for high-speed press and studio "single-flash" photography. Light is blue-white for daylight color film. Life is over 30,000 flashes.

Syl. Type	Oper. Volts	Flash Rate	Peak Light (lumens)	Net Each
R4330	2250	*	12,000,000	14.40

*6 flashes/min. max. @ 100 watt-sec. flash.

STROBOTRONS—FIG. I

Employed in visual (and sometimes photographic) examination of rotating and reciprocating machinery.

Syl. Type	Anode Volts	Dis. Cap.	Repetition Rate	Net Each
1D21/SN4	300 max.	2 μf max.	240 p.p.s. max.	$ 5.65
S413	425†	2 μf	100 p.p.s.	12.95
SA-309	425†	1 μf#	100 p.p.s. max.	6.10

†Minimum; 600 v. max. #Dissipation shall never exceed 3.5 w.

MISCELLANEOUS TYPES

Syl. Type	Description	Net Each
OA5	Trigger-tube (Fig. L).	$ 5.05
6476	Counter tube, 4 kc max. prr. 10-output cold cathode	18.40
6483	Trigger tune, cold cathode	3.65

GLOW MODULATOR TUBES—FIG. J

Syl. Type	Oper Ma.	Oper Volts	Mod. Freq. Range (cps)	Net Each
1B59/R1130B	5-35	150	15-15,000	16.55
R1131C	3-25	150	15-15,000	16.55

GAS DISCHARGE TUBE—FIG. K

Sylvania Pirani Tube, Type R1111 is convenient for measuring low gas pressures directly. Useful pressure range is from 1 to 1000 microns. Extremely useful as a pressure gauge and leak detector in evacuating apparatus or in automatic pressure control and recording equipment. Nonex glass envelope, 8" max. length, 1½" max. dia. Terminal connections unpolarized. 6.6 ohms resistance cold, 15.5-17.0 ohms hot—evacuated tube, 100 μa current. Operating voltage, 1.5 volts.

Sylvania Type R1111—Net Each.. **$6.30**

Sylvania Type R1111M—Matched pair of Type R1111. Per Pair, Net..... **$15.15**

POWER AMPLIFIERS, OSCILLATORS, PHOTO AND SPECIAL TYPES

Sylvania Type	Net Each	Syl. Type	Net Each
0A2	$1.26	829B	16.25
0A3(VR75)	1.32	832A*	12.90
0A4G	1.45	866A	2.45
0B2	1.39	872A	8.20
0B3(VR90)	1.65	884	1.85
0C3(VR105)	1.32	885	2.00
0D3(VR150)	1.32	921	2.95
1C8	1.40	922	1.73
1P39	1.75	929	1.75
1S6	1.40	931A	8.60
1V5	1.40	1222	2.45
2B5	3.50	1229	6.40
2D21	2.00	1236A	9.60
2E24*	4.65	1247	6.00
2E26*	3.85	1265	3.10
2E30*	2.45	1273	1.50
3A4	1.20	1274	4.85
3A5	1.30	1280	1.50
5R4GY	1.89	2050	1.85
5U4WG/5931	6.50	5636	12.85
6AD4	3.50	5639	12.85
6AJ5	3.50	5641	8.35
6AK4	2.85	5642	2.60
6AL5W	2.95	5643	12.00
6AN6	3.75	5644	12.00
6AQ5W	4.25	5647	8.35
6AS6	3.43	5654	3.15
6AZ5	3.65	5679	1.35
6BA5	4.45	5718	5.95
6BF7W	4.45	5719	5.85
6D4	2.85	5722	6.40
6J4	8.05	5726	1.45
6L6GA/Y	3.10	5749	2.00
6L6WGA/5932	8.60	5751	3.35
6SJ7WGT	2.45	5763*	1.93
6SK7GTY	1.50	5814A	3.25
6SL7WGT	3.00	5840	8.85
6SN7WGT	2.75	5845	5.25
6V6GTY	1.08	5896	7.25
6X4W	2.00	5899	8.90
6X5WGT	2.00	5902	9.00
7AK7	7.75	5977	9.10
7F8W	6.40	5987	12.85
26D6	2.85	6021	9.10
28D7	2.75	6110	12.85
28D7W	9.75	6111	9.00
801A*	4.85	6112	9.40
805*	13.50	6145	8.60
807*	2.50	6146*	4.90
807W/5933*	12.85	6159*	4.90
807Y*	4.90	6205	12.45
809*	4.00	6206	12.85
810*	16.25	8005*	8.40
811A*	5.00	9001	3.95
812A*	5.00	9002	2.80
813*	18.00	9003	3.75
815*	8.20	X6030	3.50
816	1.65		

*Transmitting Types.

Picture Tube Cross-Reference Chart

Notes pertaining to table below. In the **Tube** column ** indicates Projection type tubes. All heaters are 6.3 volts, 0.6 amps. The **Defl-Focus** column is keyed as follows: **1.** Magnetic Deflection and Focus; **2.** Magnetic Deflection Electrostatic Focus; **3.** Electrostatic Deflection and Focus. **Anode kv** column: The symbol # in this column indicates external conductive coating. All specifications are for reference only and are not to be construed as authoritative due to possible changes in design.

Tube	Shape and Type	Face Plate	Ion Trap	Defl. Focus	Anode kv	Defl. Angle	Neck Lgth. In.	Over. Lgth. In.	MANUFACTURERS LIST AND DEALER PRICES							
									RCA		GE		SYLVANIA		TUNG-SOL	
									List Price	Net Each	List Price	Net Each	List Price	Net Each	List Price	Net Each
3KP4	○ Glass	Clear	None	3	2.5	.....	6 5/8	11 1/2	$25.50	$19.05	.....	.....	.....	.....	.....	.....
3NP4**	○ Glass	Clear	None	1	25#	42°	7 5/16	10	.....	.....	.....	.....	.....	.....	.....	.....
5TP4**	○ Glass	Clear	None	2	27#	50°	7 15/32	11 3/4	78.25	58.65	$78.25	58.65	.....	.....	.....	$22.10†
7DP4	○ Glass	Clear	Dble.	2	8#	50°	8 1/8	14 1/16	39.75	29.75	.....	.....	.....	.....	.....	.....
7JP4	○ Glass	Clear	None	3	6	.....	5 3/8	14 1/2	27.75	20.80	27.75	20.80	$27.75	$20.80	$27.75	20.80
8AP4A	○ Metal	Gray	Sgle.	1	9	54°	7	14 1/4	.....	.....	27.75	19.40	.....	.....	.....	.....
10BP4A	○ Glass	Black	Dble.	1	10#	50°	8 3/16	17 5/8	19.25	14.15	19.25	13.45	19.25	14.15	19.25	14.15
10FP4A	○ Glass	Gr. Al.	None	1	10#	50°	8 3/16	17 5/8	25.40	18.15	25.40	17.45	.....	.....	.....	.....
12KP4A	○ Glass	Gr. Al.	None	1	12#	52°	7 1/8	17 5/8	29.75	21.35	29.75	20.50	29.75	22.35	.....	.....
12LP4A	○ Glass	Gray	Dble.	1	12#	54°	8 1/4	18 3/4	24.25	17.35	24.25	16.50	24.25	17.35	24.25	17.35
12UP4B	○ Metal	Gray	Dble.	1	12	54°	8 1/16	18 5/8	.....	.....	42.75	32.00	42.75	32.00	.....	.....
12VP4A	○ Glass	Gray	Dble.	1	12#	55°	7 11/16	18 3/8	.....	.....	.....	.....	30.50	22.75	.....	.....
14CP4	□ Glass	Gray	Sgle.	1	14#	70°	7 1/2	16 13/16	26.75	19.35	26.75	18.65	26.75	19.35	26.75	19.35
15GP22	○ Metal	NEW TRI-COLOR KINESCOPE							265.00	235.00	265.00	235.00	.....	.....	.....	.....
16AP4A	○ Glass	Gray	Dble.	1	15	60°	7 9/16	20 3/4	44.75	33.50	44.75	32.50	44.75	33.50	44.75	33.50
16AP4B	○ Glass	Gray Fr							.....	.....	.....	.....	.....	.....	.....	.....
16DP4A	○ Metal	Gray	Dble	1	15	60°	7 7/8	19 5/8	44.75	33.50	44.75	32.25	.....	.....	.....	.....
16GP4	○ Metal	Gray		1	14	70°	6 15/16	17 5/16	.....	.....	44.75	32.50	.....	.....	44.75	33.50
16GP4B	○ Metal	Gray—Etched Face							44.75	33.50	44.75	32.50	44.75	33.50	44.75	33.50
16JP4A	○ Glass	Gray	Dble.	1	16	60°	7 1/2	20 3/4	.....	.....	.....	.....	41.50	31.00	.....	.....
16KP4	□ Glass	Gray	Sgle.	1	16	66°	7 1/2	18 3/4	32.00	24.00	32.00	22.90	32.00	24.00	32.00	24.00
16KP4A	□ Glass	Gr. Al.	Sgle.						.....	.....	36.75	26.90	36.75	27.50	.....	.....
16LP4A	○ Glass	Gray	Dble.	1	14#	52°	7 3/8	22 1/4	41.50	31.00	41.50	29.85	41.50	31.00	.....	.....
16RP4	□ Glass	Gray	Sgle.	1	16#	70°	7 1/2	18 3/4	32.00	24.00	32.00	22.90	32.00	24.00	32.00	24.00
16TP4	□ Glass	Gray	Sgle.	1	14	70°	6 7/8	18 1/8	32.00	24.00	32.00	22.90	32.00	24.00	32.00	24.00
16WP4A	○ Glass	Gray	Dble.	1	16#	70°	7 1/2	17 3/4	41.50	31.00	41.50	29.85	41.50	31.00	.....	.....
16ZP4	○ Glass	Gray	Dble.	1	16	52°	7 9/16	22 5/8	.....	.....	.....	.....	41.50	31.00	.....	.....
17AVP4	□ Glass	Gray	Sgle.	2	16#	85°	6 11/16	16	34.00	25.50	.....	.....	.....	.....	34.00	25.50
17BP4A	□ Glass	Gr. Al.	Sgle.	1	16#	66°	7 11/16	19 5/8	32.00	24.00	32.00	22.90	32.00	24.00	32.00	24.00
17BP4B	□ Glass	Gr. Al.							37.50	28.00	37.50	26.90	37.50	28.00	37.50	28.00
17CP4	□ Metal	Gray Fr	Sgle.	1	16	70°	7 3/8	19	40.00	30.00	40.00	29.00	40.00	30.00	40.00	30.00
17FP4A	□ Glass	Gray	Sgle.	2	18#	70°	7 11/16	19 5/8	.....	.....	37.25	26.05	.....	.....	.....	.....
17GP4	□ Metal	Gray	Sgle.	2	12	70°	7 1/2	18 9/16	44.75	33.50	44.75	32.50	44.75	33.50	44.75	33.50
17HP4	□ Glass	Filter	Sgle.	2	16#	65°	7 1/2	19 9/16	34.00	25.50	34.00	24.25	34.00	25.50	34.00	25.50
17JP4	□ Glass	Gray	Sgle.	1	18#	65°	17 11/16	19 5/8	34.00	25.50	.....	.....	34.00	25.50	.....	.....
17LP4	□ Glass	Filter	Sgle.	2	16#	65°	7 1/2	19 9/16	34.00	25.50	34.00	24.25	34.00	25.50	34.00	25.50
17QP4	□ Glass	Filter	Sgle.	1	16#	66°	7 11/16	19 9/16	32.00	24.00	32.00	22.90	32.00	24.00	32.00	24.00
17RP4	□ Metal	Gray	Sgle.	2	16#	65°	7 1/2	19	34.00	25.50	34.00	24.25	34.00	25.50	34.00	25.50
17TP4	□ Metal	Fr. Filt.	Sgle.	2	16	66°	7 1/2	19 9/16	40.00	30.00	40.00	29.00	40.00	30.00	.....	.....
17YP4	□ Glass	Gray	Sgle.	1	18#	66°	7 11/16	19 9/16	.....	.....	.....	.....	32.00	24.00	.....	.....
19AP4A	○ Metal	Filter	Sgle.	1	19	66°	7 1/8	22	.....	.....	48.75	35.85	48.75	36.50	.....	.....
19AP4B	○ Metal	Fr. Filt.							48.75	36.50	48.75	35.85	48.75	36.50	48.75	36.50
19FP4	○ Glass	Gray	Dble.	1	19	66°	7 7/8	22 1/2	.....	.....	.....	.....	.....	.....	.....	.....
20CP4	□ Glass	Filter	Sgle.	1	18	70°	7 3/16	21 13/16	39.00	29.20	39.00	27.70	39.00	29.20	.....	.....
20CP4A	□ Glass	Filter—Same with Ext. conductive coating.							.....	.....	39.00	27.70	39.00	29.20	39.00	29.20
20DP4	□ Glass	Clear	Sgle.	1	18	70°	6 1/8	21 3/4	.....	.....	.....	.....	39.00	29.20	.....	.....
20DP4A	□ Glass	Gray			18#				.....	.....	40.00	27.70	40.00	29.20	39.00	29.20
20HP4A	□ Glass	Gray	Sgle.	2	16#	66°	7 1/2	21 3/4	.....	.....	42.75	29.00	42.75	30.50	40.75	30.50
20MP4	□ Glass	Filter	Sgle.	2	16#	66°	7 1/2	21 3/4	57.75	43.25	.....	.....	57.75	43.25	.....	.....
21ALP4A	□ Glass	Gr. Al.	Sgle.	2	18#	90°	7 11/16	20 7/16	46.00	34.50	46.00	33.00	.....	.....	46.00	34.50
21AMP4A	□ Glass	Gr. Al.	Sgle.	1	18#	85°	7 11/16	20 7/16	44.25	33.20	46.00	31.70	.....	.....	44.25	33.20
21AP4	□ Metal	Fr. Filt.	Sgle.	1	18	66°	7 1/2	22 5/16	47.00	35.20	47.00	34.35	.....	.....	47.00	35.20
21ARP4A	□ Glass	Gr. Al.	Int.	1	20#	70°	7 1/2	23 1/32	.....	.....	58.70	41.05	.....	.....	.....	.....
21ATP4	□ Glass	Filter	Sgle.	2	18#	85°	7 11/16	23 3/8	46.00	34.50	46.00	33.00	.....	.....	.....	.....
21AUP4A	□ Glass	Gr. Al.	Sgle.	2	18#	70°	7 11/16	23 13/32	.....	.....	46.00	33.00	.....	.....	46.00	34.50
21AVP4A	□ Glass	Gr. Al.	Sgle.	2	18#	70°	7 11/16	23 13/32	.....	.....	46.00	33.00	.....	.....	.....	.....
21AWP4	□ Glass	Filter		1		72°			44.25	33.20	44.25	31.70	.....	.....	.....	.....
21AXP22	○ Metal	NEW TRI-COLOR KINESCOPE							175.00	145.00	.....	.....	.....	.....	.....	.....
21EP4A	□ Glass	Filter	Sgle.	2	18#	66°	7 1/2	21 5/16	39.00	29.20	39.00	27.70	39.00	29.20	39.00	29.20
21EP4B	□ Glass	Gr. Al.							44.25	33.20	44.25	31.70	44.25	33.20	44.25	33.20
21FP4A	□ Glass	Filter	Sgle.	2	18#	65°	7 11/16	22 3/8	40.75	30.50	40.75	29.00	40.75	30.50	40.75	30.50
21MP4	□ Glass	Fr. Filt.	Sgle.	2	16	66°	7 1/2	22 5/8	48.75	36.50	48.75	35.85	.....	.....	48.75	36.50
21WP4	□ Glass	Gray	Sgle.	1	18#	66°	7 11/16	22 5/8	.....	.....	.....	.....	39.00	29.20	.....	.....
21WP4A	□ Glass	Gr. Al.							.....	.....	47.00	31.70	47.00	33.20	.....	.....
21XP4	□ Glass	Gray	Sgle.	2	18#	66°	7 11/16	22 5/8	.....	.....	.....	.....	40.75	30.50	40.75	30.50
21XP4A	□ Glass	Gr. Al.							.....	.....	48.50	33.00	48.50	34.50	.....	.....
21YP4	□ Glass	Gray	Sgle.	2	14	70°	7 1/2	22 15/16	40.75	30.50	40.75	29.00	40.75	30.50	40.75	30.50
21YP4A	□ Glass	Filter	Sgle.	2	18#	70°	7 1/2	23 1/32	46.00	34.50	46.00	33.00	.....	.....	46.00	34.50
21ZP4A	□ Glass	Gray	Sgle.	1	18	70°	7 1/2	22 11/16	39.00	29.20	39.00	27.70	39.00	29.20	39.00	29.20
21ZP4B	□ Glass	Filter	Sgle.	1	18#	70°	7 1/2	23 1/32	44.25	33.20	44.25	31.70	.....	.....	44.25	33.20
22AP4A	○ Metal	Gray	Sgle.	1	19	70°	7 5/16	23 3/8	.....	.....	.....	.....	.....	.....	.....	.....
24AP4	○ Metal	Filter	Sgle.	1	16	70°	7 5/32	23 15/16	.....	.....	120.00	90.00	.....	.....	.....	.....
24BP4A	○ Metal	Gr. Filt.	Sgle.	2	12	70°	7 1/2	24 1/4	.....	.....	.....	.....	.....	.....	.....	.....
24CP4	□ Glass	Gray	Sgle.	1	20#	90°	7 1/2	21 1/8	.....	.....	.....	.....	.....	.....	.....	.....
24CP4A	□ Glass	Gr. Al.							65.60	50.75	65.50	49.25	75.50	56.50	.....	.....
24DP4A	□ Glass	Gray Fr	Sgle.	2	20#	90°	7 1/2	21 1/8	71.10	53.40	68.25	51.25	77.25	58.00	.....	.....
27AP4	○ Metal	Filter	Sgle.	2	18	86°	7 1/2	21 3/8	.....	.....	.....	.....	.....	.....	.....	.....
27EP4	□ Glass	Gr. Al.	Sgle.	1	20	90°	7 1/2	23 1/16	.....	.....	110.00	82.50	117.00	88.00	.....	.....
27GP4	□ Glass	Gray	Sgle.	1	22.5	90°	7 1/2	23 1/16	.....	.....	.....	.....	.....	.....	.....	.....
27MP4	□ Metal	Al. Filt.	Sgle.	1	18	90°	7 1/2	22 5/16	152.50	114.40	.....	.....	.....	.....	.....	.....
27RP4	□ Glass	Gr. Al.	Sgle.	1	20#	90°	7 11/16	7 7/16	.....	.....	110.00	82.50	117.00	88.00	.....	.....

429WT-55A

†North American Phillips

Transistors, Diodes, Transformers

RCA TRANSISTORS

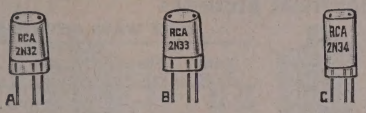
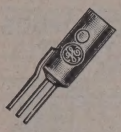


Fig. A—Type RCA-2N32 Transistor. Point-contact type designed for large-signal applications such as switching circuits. Net Each **$12.25**

Fig. B—Type RCA-2N33 Transistor. Point contact type designed for oscillator applications in the 50 mc region. Net Each **$12.25**

Fig. C—Type RCA-2N34 Transistor. Junction p-n-p type designed for low frequency, low power amplifier applications. Net Each **$10.75**

GENERAL ELECTRIC TRANSISTORS



Type G-11—(RETMA Type 2N30) Uses a metal case with two silver plated phosphor bronze pins projecting from one end. These pins designed to plug into two adjacent holes of standard 5 or 7-pin subminiature rectangular socket. Wax-filled case. Emitter DC current, .5ma. Collector DC current, 2ma. Emitter RMS signal, 0.3 volts. Mounts in any position. Power gain, 17 to 21 db. Power output, 25 milliwatts. Net Each **$17.40**

Type G-11A—(RETMA Type 2N31) Same mechanical and electrical characteristics as G-11 except that a check for trigger performance has been added. Each triode tested for negative resistance (trigger action) in a test circuit. Base current on an average unit changes approximately 0.5ma for a 0.05 volt change in base voltage. The collector current changes between −.5 and 1.0ma at the same time. Net Each **$17.40**

Type 2N43—Junction type p-n-p transistor, having characteristics of high gain, medium power. **Ratings:** Coll. diss. 150 mw max.; coll. voltage, −45 v. max.; current −50 ma. **Size:** 0.282″ x 0.328″. Weight 2 oz. Net Each **$14.25**

Type 2N44—Junction type p-n-p transistor. Has characteristics of medium gain and medium power. **Ratings:** Coll. Diss. 150 mw max.; coll. voltage, −45 v. max; current, −50 ma. **Size:** 0.282″ x 0.328″. Weight 2 oz. Net Each **$9.51**

Type 2N45—Junction p-n-p. Medium gain; medium power. **Ratings:** 150 w max. coll. diss.; −45 v. max. V.; −50 ma. max. current. **Size:** 0.282″ x 0.328″. Shpg. Wt. 2 oz. Net Each **$7.14**

RAYTHEON CRYSTAL DIODES

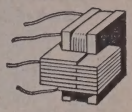
Glass-to-metal seals. Superior humidity characteristcs. No wax or filler to affect operation even up to 100° C. Extremely small change in forward resistance with temperature. Small size: ¼″ diameter, 23/32″ length. Smaller and more flexible leads for easier wiring. Completely insulated body for compact assembly. All are Germanium except those designated as Silicon types.

Raytheon Type	RETMA Type	Description	Net Each
.....	IN66	General Purpose Diode	$ 0.65
.....	IN67*	High Back-Resistance	2.00
.....	IN67P*	50V DC Restorer (Plug-in)	2.00
.....	IN68	100V DC Restorer	2.00
CK705	IN34, 43, 48	General Purpose Diode	.85
CK705A	.....	General Purpose Diode	.70
CK705AP	.....	General Purpose Diode (Plug-In)	.70
CK705P	.....	General Purpose Diode (Plug-In)	.65
CK706A	IN60, 64	Video Detector	.40
CK707*	IN47, 63	50V DC Restorer	1.60
CK707P*	.....	50V DC Restorer (Plug-In)	2.00
CK708*	IN38	100V DC Restorer	2.00
CK708P*	.....	100V DC Restorer (Plug-In)	2.00
CK709	IN40	Bridge Rectifier	4.50
CK710	G-7, IN21B, 28	UHF Converter Mixer Diode	.97
CK711	.....	4 Matched Diodes	16.50
CK713*	.....	Computer Diode	.95
CK713A	.....	Computer Diode	.95
CK713AP*	.....	Computer Diode (Plug-In)	.95
CK715	.....	Frequency Multiplier	.65
CK730	.....	UHF Mixer	.95
CK731	.....	UHF Converter	.95
CK732	.....	UHF Converter (Plug-In)	1.05
CK735	.....	Junction Diode, Silicon Type	5.50
CK736	.....	Junction Diode, Silicon Type	5.50
CK738	.....	Junction Diode, Silicon Type	5.50
CK739	.....	Computer Diode	2.00
CK740	.....	Computer Diode	2.00
CK741	.....	Computer Diode	2.80
CK742	.....	Computer Diode	2.60
CK745	.....	Computer Diode	2.80
CK746	.....	Junction Diode, Silicon Type	3.15
CK747	.....	Computer Diode	1.90

*Hermetically sealed.

STANCOR TRANSISTOR TRANSFORMERS

The smallest iron core audio transformers ever built. They weigh less than 1/10 oz. and are no larger than the transistors they power. Useful range, below 1mw level. Constructed of extremely fine wire, wound on molded nylon bobbins with special nickel steel laminations. These transformers can be designed to your specifications in lots of 5 or more. Send your specifications for price and delivery quote.



Stancor No.	Application	Imped. Ohms Pri.	Imped. Ohms Sec.	DC Ohms Pri.	DC Ohms Sec.	Wt. Lbs.	Net Each
UM-110	Interstage	20M	1000	1675	285	.07	$7.35
UM-111	Out. or Mtchg.	1000	50/60	120	9.0	.10	6.30
UM-112	Hi-Z Mic. In.	200M	1000	4000	195	.10	8.25
UM-113	Interstage	20M	1000	1350	205	.10	6.60
UM-114	Out. or Mtchg.	500	50/60	70	9.0	.10	6.30

Dimensions: UM-110 ¼″ x ⅜″ x ⅜″. Others, ⅜″ x ⅜″ x ⅜″.

RAYTHEON TRANSISTORS

Type CK-721 (Fig. A)—Junction type. Plastic and glass case. Average characteristics: Collector voltage, −6, collector current, 2ma. Current amplification factor, 0.975. Power gain (grounded emitter), 38 db. Size: ½″ x ¼″. Net Each **$5.15**

Type CK-722 (Fig. B)—Junction. Same construction and size as above. Designed especially for oscillator, power amplifier and Class B operation. Average characteristics: Collector voltage −6, collector current, 2ma. Current amplification factor, .09. Power gain (grounded emitter), 34 db. Net Each **$3.10**

Type CK-716 (Not Ill.)—Point-Contact type. Brass case, 13/20″ x ¼″. **Ratings:** Collector current, 4 ma, voltage, 40 volts; Collector dissipation 100mw; Emitter current, 10ma. Average power output, 3mw; Gain, 18db. Minimum frequency response, 100kc Efficient to 40° C. Net Each **$18.00**

NEW RAYTHEON TRANSISTORS

Raytheon Type	Construction	Application	Net Each
*2N63	P-n-p Junction	AF-RF Amplifier	$11.15
*2N64	P-n-p Junction	AF-RF Amplifier	14.25
*2N65	P-n-p Junction	AF-RF Amplifier	20.50
CK723	P-n-p Junction	AF-RF Amplifier	6.00
CK725	P-n-p Junction	AF-RF Amplifier	9.50
CK727	P-n-p Junction	Low Noise AF Amplifier	11.25

*Hermetically sealed types.

RCA CRYSTAL DIODES

RCA's new Crystal Diodes perform excellently as low power rectifiers. Resist shock and vibration, and are unaffected by moisture. Very small size makes them ideal for compact circuits. Shunt capacitance is low, highly efficient in rectifying low-voltage AC signals. Point-contact diodes, hermetically sealed in glass. Shipping weight, 2 oz.

1N34A. For low power rectification in clipping, isolating, metering and similar circuits. Peak inverse voltage, 60 volts. Maximum average current, 50 ma. Net Each **90c**

1N55A. Large signal type. For use in electronic computer, high voltage probe, DC restorer and similar circuits. Peak inverse voltage, 150 volts; maximum average current 50 ma. Net Each **$4.70**

1N56A. High conduction. For use as limiter in FM receiver circuits. Peak inverse voltage, 40 volts. Max. aver. current 60 ma. Net Each **$1.45**

1N58A. Similar to 1N55A above, but with 100 volts peak inverse voltage and maximum average current of 50 ma. Net Each **$1.45**

SYLVANIA TRANSISTORS

Type 2N34—Junction type p-n-p transistor. Designed for use as a general-purpose transistor amplifier for high gain, low power, low frequency circuits. Particularly useful as an audio amplifier. **Ratings:** Collector voltage, −6 volts; Emitter current, 1 ma; Current amplification factor, 40; Power gain, 40 db. .421″ wide x .170″ thick. Net Each **$10.75**

Type 3N21—Point Contact Tetrode. Small signal applications. Rated max. 100 mw collector dissipation; −60 volts. Emitter voltage, −50 volts. Emitter output 30 mw. Size .315″ x .565″. Weight 2 oz. Net Each **$25.20**

Type 2N68—P-n-p Junction Output Transistor. Provides high power and medium gain for intermediate frequency applications. Collector −25 v. Collector current at 0 output −320 ma. Gives approx. 10 db power gain. 3 watts output in push pull, Class B. Net Each **$15.35**

Type 2N35—N-p-n transistor. Net Each **$13.25**

Industrial and Special Purpose Tubes

CETRON PHOTOTUBES

STANDARD RED SENSITIVE GAS-FILLED, CLASS C

Tube Type	Replaces	Net Each
CE-1C	868, 918, PJ-23 etc.	$4.10
CE-2C	WL-735	5.50
CE-3C	WL-728, WE-3A	5.50
CE-4C	.....	5.50
CE-21C	920	5.60
CE-22C	1P41	4.00
CE-23C	923	2.90
CE-25C	927	5.50
CE-30C	930	2.60
CE-36C	.....	5.50

SPECIAL RED SENSITIVE GAS-FILLED

Tube Type	Replaces	Net Each, Class A/B	C	D
CE-5	WL-739	$12.00	$ 6.50	$ 3.50
CE-7	.....	10.00	6.00	3.30
CE-8	.....	10.00	6.00	3.30
CE-10	.....	60.00	40.00	25.00
CE-15	.....	50.00	30.00	22.00
CE-18	.....	20.00	12.00	7.00
CE-26	.....	8.50	5.50	3.30
CE-54	.....	.....	5.00	2.50
CE-55	924	.....	5.00	2.25

RED SENSITIVE—VACUUM

CE-1V	PJ-22	$ 8.50	$ 4.20	$ 2.60
CE-2V	.....	10.00	6.00	3.30
CE-4V	.....	10.00	6.00	3.65
CE-11V	917	12.00	5.00	3.00
CE-13V	919	12.00	5.00	3.00
CE-25V	.....	12.00	5.50	3.00
CE-30V	925	8.50	2.80	1.85
CE-31V	919	12.00	5.00	3.00

BLUE SENSITIVE—GAS-FILLED

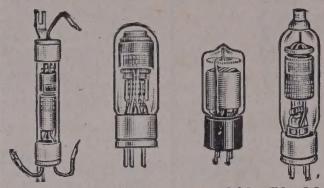
Tube Type	Replaces	Net Each Class Q	Net Each Class R
CE-59	5581	$9.00	$4.40
CE-64	5583	10.00	3.60
CE-73	.....	12.00	4.30
CE-74	.....	12.00	6.50
CE-76	.....	12.00	4.50
CE-83	.....	16.00	10.00
CE-91	1P37	10.00	3.30
CE-97	.....	16.00	10.00

BLUE SENSITIVE—VACUUM

CE-29	929, 1PS9	9.00	2.80
CE-34	934	10.00	4.50
CE-61	GL-441	10.00	6.60
CE-99	.....	16.00	6.50

ELECTRONS INC.

INDUSTRIAL RECTIFIERS



EL-16F EL-3C EL-C1J EL-C6J

HALF WAVE RECTIFIERS

Tube Type	Filam. Volt Ap.		Out. DC Aps.	Peak Inv. V.	Net Each
EL-3B	2.5	9.0	2.5	920	$ 8.60
EL-6B	2.5	21.0	6.4	920	11.05
EL-6F	2.5	21.0	6.4	920	12.40
EL-16B	2.5	36.0	16.0	620	24.30
EL-16F	2.5	36.0	16.0	620	24.30
EL-60B	.....		50.0	....	151.50

GRID CONTROL RECTIFIERS

EL-C1B	2.5	6.3	1.0	700	9.60
EL-C1B/A	2.5	6.3	1.0	1250	10.40
EL-C1J	2.5	6.3	1.0	700	9.60
EL-C1J/A	2.5	6.3	1.0	1250	10.90
EL-C1K	2.5	6.3	1.0	1250	10.40
EL-C3J	2.5	9.0	2.5	1250	12.10
EL-C3J/A	2.5	9.0	2.5	4250	15.10
EL-C6C	2.5	25.0	6.4	1000	43.20
EL-C6J	2.5	21.0	6.4	1250	26.40
EL-C6J/A	2.5	21.0	6.4	1250	29.30
EL-C16J	2.5	31.0	16.0	1250	57.90

FULL WAVE RECTIFIERS

Tube Type	Filam. Volt Ap.		Out. DC Aps.	Peak Inv. V.	Net Each
EL-1C	2.5	6.0	1.0	725	$ 7.60
EL-3C	2.5	11.5	2.5	725	8.90
EL-6C	2.5	17.0	6.4	725	16.60

CETRON RECTIFIER TUBES

Type CE-	Gas/ Vac.	Rectification	Replaces	Net Each
200	Merc.	Full W.	CE-200	$7.75
201A	Merc.	Full W.	CE-200	8.00
202B	Merc.	Half W.	.....	35.00
203	Merc.	Half W.	.....	11.60
205	Merc.	Half W.	2RA5	12.60
206	Merc.	Half W.	2RA6	10.00
210A	Merc.*	Full W.	CE-210	7.75
211A	Merc.*	Full W.	CE-211	8.00
213A	Merc.	Half W	2RA3	7.50
220	Hi-Vac	Half W.	CEQ-72	7.72
221	Xenon	Full W.	4B25	19.00
222	Xenon	Full W.	3B22	8.50
224	Xenon	Full W.	4B24	10.90
225	Argon	Half W.	.....	5.00
226	Argon	Half W.	R6A	6.00
230	Hi-Vac	Half W.	3B24	13.20
235A	Argon	Half W.	R15A	10.75
243	Merc.*	Half W.	CE-213	7.50
866/ 866A	Merc.	Half W.	VT46A	2.35

*And gas.

GRID CONTROL RECTIFIERS

302	Mercury Vapor	722A	17.00
303	Gas-Filled	C1B/3C31	13.25
304	Mercury Vapor	.....	74.75
305	Gas-Filled	.....	28.00
309	Mercury Vapor	FG17	7.90
311	Mercury & Gas	3C23	15.75
393A	Mercury & Gas	.....	15.75
323B	Mercury & Gas	.....	15.75
320	Mercury & Gas	.....	14.20
322	Mercury & Gas	.....	21.65
329	Xenon. Hi-Freq.	.....	57.50
330	Xenon. Hi-Freq.	.....	50.00
331	Xenon. Hi-Freq.	.....	95.00

IF THE INDUSTRIAL OR SPECIAL PURPOSE TUBE YOU REQUIRE IS NOT LISTED IN THIS CATALOG, WRITE, GIVING FULL INFORMATION AS TO USE, SPECIFICATIONS, MAKE AND MODEL NUMBER.

NATIONAL ELECTRONICS INDUSTRIAL TUBES

THYRATRONS

Nat. Elec. Type	Net Each
3C23	$12.50
323B	13.25
393A	13.25
FG-17/5557/NL-715	8.50
NL-710/6011	12.10
NL-714	8.50
NL-716	9.60
NL-740	20.50
NL-740P	20.50
NL-741	20.50
NL-741P	20.50
NL-760	29.30

IGNITRONS

NL-1001	$37.50
NL-1005	72.00
NL-5551	72.00
NL-5552	110.00
NL-5822	130.00

FULL-WAVE RECTIFIERS

NL-600	$ 8.20
NL-602	10.20
NL-604	8.90
NL-606	16.60

HALF-WAVE RECTIFIERS

NL-249C	$12.75
NL-614	8.60
NL-615	7.50
NL-617	11.60
NL-618	11.05
NL-618P	11.05
NL-623	11.60
NL-625	29.00
NL-627	35.00
NL-635	11.05
NL-643	13.50
NL-649/5834	7.50
NL-653/5835	10.75
NL-5558/FG-32	14.00

WESTINGHOUSE SPECIAL PURPOSE TUBES

PLIOTRONS

Westinghouse Type	Net Each	Westinghouse Type	Net Each
WL-3X2500A3#	$	WL-802	$ 4.75
WL-4X150A	48.00	WL-813	18.00
WL-4X500A#	121.00	WL-814	14.25
WL-4-1000A	132.00	WL-815	8.20
WL-207	240.00	WL-826	12.50
WL-473	165.00	WL-829B	16.25
WL-4D21/4-125A	30.25	WL-833A	49.50
WL-450TH	77.00	WL-849	138.00
WL-5D22/4-250A	41.25	WL-889RA	295.00
WL-805	13.50	WL-892	237.00
WL-807	2.50	WL-5604	540.00
WL-808	10.75	WL-5619	390.00
WL-809	4.00	WL-5736	160.00
WL-810	16.25	WL-8000	14.50
WL-811A	5.00	WL-8005	8.40
WL-812A	5.00		

#Forced air-cooled radiator.

IGNITRONS

WL-5550/681	$ 45.00	WL-5553/655	$239.00
WL-5551/652	72.00	WL-5554/679	171.50
WL-5552/651	110.00	WL-5555/653B	333.50

THYRATRONS

Westinghouse Type	Net Each	Westinghouse Type	Net Each
WL-3C23	$ 12.50	WL-678	$ 47.00
WL-414	120.00	WL-672A	35.00
WL-KU610	22.00	WL-2050	1.85
WL-624	48.00	WL-5557/17	8.50
WL-KU627	22.00	WL-5604	540.00
WL-KU628	34.00	WL-5619	390.00
WL-632B	29.00	WL-5736	160.00
WL-KU676	55.00	.....	.....

KENOTRONS

WL-456	$100.00	WL-616	$225.00
WL-481B	8.25	WL-836	9.00
WL-579B	15.00	WL-8020	24.00

PHANOTRONS

WL-3B22/1C	$ 7.52	WL-857B	$218.00
WL-4B24/3C	8.90	WL-869B	138.00
WL-575A	21.00	WL-872A	8.20
WL-670A/6C	16.63	WL-5558/32	14.00
WL-816	1.65	WL-5561/104	37.90
WL-866A	2.10	WL-8008	8.20

649X-55A

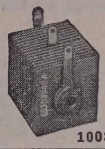
Selenium Rectifiers, Crystal Diodes

FEDERAL SELENIUM RECTIFIERS AND KITS

1003

1004

1006


1008

FTR No.	Max. DC Ma.	Max. RMS Volts	Plate Size	Net Each
1159	20	130	5/8" round	$ .93
1002A	65	130	1" square	.90
1003A	75	130	1" square	1.11
1004A	100	130	1 13/64" square	1.23
1101A	100	130	1" square	1.14
1005A	150	130	1 13/64" square	1.35
1006A	200	130	1 17/32" square	1.89
1028A	250	130	1 17/32" square	1.89
1090A	300	130	1 17/32" square	1.98
1023	350	130	1 3/4" square	2.46

FTR No.	Max. DC Ma.	Max. RMS Volts	Plate Size	Net Each
1130	400	130	2" square	$2.55
1179	500	130	2" square	2.64
1022	450	160	2" square	2.97
1016	300	25	1 13/64" square	1.44
1017	600	25	1 17/32" square	1.89
1013	700	18	1 17/32" square	.84
1018	2000	18	4 1/4" lg. (Mtg. Plate)	2.31
1001	75	20	1" square	.48
Federal Miniature Selenium Rectifier Handbook				.50
Federal Selenium Rectifier Replacement Guide				.50

Letter "A" placed after number indicates locking lug.

SERVICE KIT NO. 1

Provides a satisfactory rectifier replacement in 9 out of 10 jobs. Contains a copy of Selenium Rectifier Handbook. Includes: 2-1004A, 2-1028A, 2-1023, 2-1021, 1 handbook.
Federal Kit No. 1—Net Each..... **$15.50**

SERVICE KIT NO. 2

Outstanding value for radio serviceman. Provides following units in a clear plastic container. 2-1002A, 2-1003A, 2-1004A, 2-1005A. Includes Selenium Rectifier Replacement Guide. **$8.75**
Federal Kit No. 2—Net Each.....

UNIVERSAL REPLACEMENT SELENIUM RECTIFIERS

FTR No.	Max. DC Ma.	Max. RMS Volts	Plate Size	Net Each
1263A	65	130	11/16" square	$ .81
1236A	300	130	1 5/8" square	1.98
1238A	350	130	1 3/4" square	2.46
1241A	400	130	2" square	2.55
1237A	500	130	2" square	2.64

All are eyelet construction and locking lug. 6/32" mounting screw included.

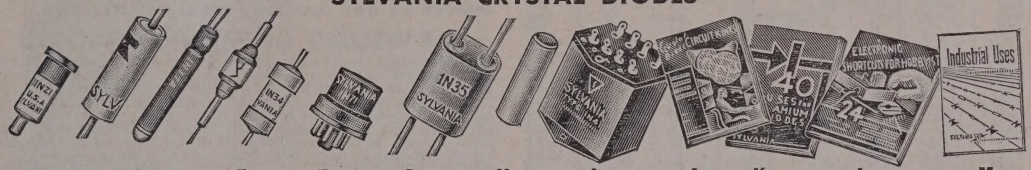
FEDERAL INDUSTRIAL RECTIFIER STACKS

Federal No.	DC Output Volts	DC Output Amps.	Max. AC Input	Dimensions, In. Diam.	Dimensions, In. Depth	Net Each
106C1AX1	10	3.0	13	3 3/8	1 9/16	$ 4.62
133C1AX1		6.0		4 3/8	1 3/4	6.18
136C1AX1		12.0		5 x 6	1 3/4	7.70
106B1AX1	20	3.0	26	3 3/8	2 1/16	8.40
133B1AX1		6.0		4 3/8	2 11/16	11.00
136B1AX1		12.0		5 x 6	2 3/4	14.10
106B2AX1	40	3.0	52	3 3/8	3 9/16	15.28
133B2AX1		6.0		4 3/8	5	20.15
136B2AX1		12.0		5 x 6	5 1/4	26.20
106B3AX1	60	3.0	78	3 3/8	4 1/2	20.43
136B3AX1		12.0		5 x 6	7 5/16	37.82

Federal No.	DC Output Volts	DC Output Amps.	Max. AC Input	Dimensions, In. Diam.	Dimensions, In. Depth	Net Each
106B4AX1	80	3.0	104	3 3/8	5 1/2	$25.63
133B4AX1		6.0		4 3/8	8 9/16	35.75
136B4AX1		12.0		5 x 6	9 5/16	49.23
139B5AX1	100	1.0	130	2" sq.	5 3/8	19.38
106B5AX1		2.4		3 3/8	6 5/8	31.02
133B5AX1		6.0		4 3/8	10 9/16	41.80
103B6AX1	120	0.3	156	*	4 3/4	13.33
104B6AX1		0.6		**	4 7/8	15.68
139B6AX1		1.0		2" sq.	6 7/16	22.68
106B6AX1		2.4		3 3/8	7 3/8	36.23
133B6AX1		6.0		4 3/8	12 5/16	49.38

*1 9/32 x 1 7/64. **1 17/32 sq.

SYLVANIA CRYSTAL DIODES



A B C D E F G H I J K L M

MICROWAVE CRYSTAL DIODES (SILICON CARTRIDGE)

Sylvania No.	Fig.	Description	Net Each
1N21A	A	3000mc Mixer..	$ 2.20
1N21B	A	3000mc Mixer..	3.25
1N21BM	A	1N21B Matched Pair.....	14.40
1N21BR	A	1N21B Rev. Pol.	5.75
1N21C	A	.....	9.00
1N23A	A	10,000mc Mixer.	2.20
1N23B	A	10,000mc Mixer.	2.90
1N23BM	A	1N23B Matched Pair.....	7.95
1N23BR	A	1N23B Rev. Pol.	5.75
1N23CR	A	1N23C Rev. Pol.	10.05
1N23BMR	...	1N23B Matched with 1N23BR..	14.40
1N23C	A	.....	5.50
1N23CMR	...	1N23C Matched with 1N23CR..	28.75
1N25	A	1,000mc High Burnout Mixer.	5.75
1N26	A	24,000mc Mixer.	10.80
1N31	I	10,000mc Detector (Coax Type)	7.20
1N32	A	3000mc Detector	15.85
1N53	...	35,000 mc Det..	43.15
1N53M	...	1N53 Matched Pair.....	104.95
1N76	I	9000mc Mixer (Coaxial Type).	4.90
1N78	I	16,000mc Mixer (Coaxial Type).	10.80
1N79	A	UHF Inst. Rect.	2.50
1N82	D	UHF Mixer Diode.....	.86

Sylvania No.	Fig.	Description	Net Each
1N82A	D	UHF Mixer Diode.....	1.05

GERMANIUM CRYSTAL DIODES

Syl. No.	Fig.	Description	Net Each
1N34	E	G.P. Diode (Ceram.)	$ 0.75
1N34A	D	G.P. Diode (Glass).	.80
1N35	G	Matched 1N34's (2)	2.20
1N38	B	100v. Diode (Cer.).	1.80
1N38A	D	100v. Diode (Glass).	2.10
1N39	B	200v. Diode, Back V.	3.95
1N40	F	Varistor—Plug In..	12.25
1N41	I	Varistor—Lug Type.	11.50
1N42	F	Varistor (1N38's)...	17.25
1N54	B	Hi-R. Diode (Cer.)..	1.10
1N54A	D	1N54, Glass.....	1.50
1N55	B	150 v. Diode (Cer.).	2.20
1N55A	D	1N55, Glass.....	4.30
1N56	B	High Conduction Diode (Ceramic).....	1.05
1N56A	D	1N56, Glass.....	1.10
1N58	B	100 v. Diode (Cer.).	1.30
1N58A	D	1N58, Glass.....	1.45
1N60	B	TV Video Detector.	.50
1N71	F	Varistor, Lo-Z.....	7.20
1N77A	C	Photodiode.....	5.75
1N105	E	1N60 Less Pigtails..	.50
1N109	E	Harmonic Generator	.50
1N111	D	Computer Diode....	1.30
1N112	D	Computer Diode....	1.05

GERMANIUM CRYSTAL DIODES (CONT).

Syl. No.	Fig.	Description	Net Each
1N113	D	Computer Diode....	1.65
1N114	D	Computer Diode....	1.05
1N115	D	Computer Diode....	.95
1N132	E	Video Detector.....	.65
1N193	D	Hi-temp. Comp Diode.....	11.50
1N194	D	Hi-temp. Comp. Diode.....	12.95
1N195	D	Hi-temp. Comp. Diode.....	14.40
1N196	D	Hi-temp. Comp. Diode, Short Recov. Time.....	15.80

APPLICATION LITERATURE

These books comprise the most complete collection of germanium diode applications ever published. "40 Uses For Germanium Diodes" **(Fig. K)** covers applications in receiver, transmitter instruments and control circuits. "Electronics Shortcuts For Hobbyists" **(Fig. L)** describes applications in all types of devices of interest to the home hobbyist and electrica experimenter. "Crystal Diode Circuit Kinks" **(Fig. J)** describes many new applications of germanium diode in crystal, meters, TV receivers and electrical experiments. "Industrial Uses for Germanium Crystals" **(Fig. M)**.
For any one of the four books, Price Each..... **25c**

Panel Lamps, Diodes, Bias Cells

GENERAL ELECTRIC RADIO PANEL, FLASHLIGHT & MISC. SERVICE LAMPS

G-4½ Min. Bay.

G-4½ Min. Sc.

G-3½ Min. Bay.

G-3½ Min. Sc.

T-3¼ Min. Bay.

T-3¼ Min. Sc.

TL-3 Min. Sc.

FE-3¾ Min. Sc.

B-3½ Min. Flg.

Lamp Type	Bulb	Base ##	Volts	Amps.	Net Each	Net, Box of 10* 1 Box	10 or More
PR-2	B-3½	A	2.4	0.50	$0.17	$1.13	$1.01
PR-3	B-3½	A	3.6	0.50	.17	1.13	1.01
PR-4	B-3½	A	2.3	0.27	.17	1.13	1.01
PR-6	B-3½	A	2.5	0.30	.17	1.13	1.01
PR-8	B-3½	A	1.9	0.60	.19	1.26	1.13
PR-9	B-3½	A	2.7	0.15	.18	1.19	1.07
13	G-3½	B	3.7	0.30	.12	.80	.71
14	G-3½	B	2.5	0.30	.12	.80	.71
27	G-4½	B	4.9	0.30	.15	.99	.89
31	G-4½	B	6.2	0.30	.13	.86	.77
40	T-3¼	B	6–8	0.15	.12	.80	.71
41	T-3¼	B	2.5	0.50	.12	.80	.71
42	T-3¼	B	3.2	0.35	.13	.86	.77
43	T-3¼	C	2.5	0.50	.12	.80	.71
44	T-3¼	C	6–8	0.25	.12	.80	.71
45	T-3¼	C	3.2	0.35	.13	.86	.77
46	T-3¼	B	6–8	0.25	.12	.80	.71
47	T-3¼	C	6–8	0.15	.12	.80	.71
48	T-3¼	B	2.0	0.06	.16	1.06	.95
49	T-3¼	C	2.0	0.06	.16	1.06	.95
50	G-3½	B	6–8	1†	.12	.80	.71
51	G-3½	C	6–8	1†	.11	.68	.61
55	G-4½	C	6–8	2†	.11	.68	.61
57	G-4½	C	12–16	2†	.14	.87	.77
81	G-6	D	6–8	6†	.14	.87	.77
82	G-6	E	6–8	6†	.16	1.00	.88
112	TL-3	B	1.2	0.22	.13	.86	.77
136	G-4½	B	1.3	0.60	.15	1.01	.91
196	G-3½	B	1.9	0.60	.16	1.06	.95
222	TL-3	B	2.2	0.25	.13	.86	.77
223	FE-3¾	B	2.2	0.25	.12	.80	.71
224	TL-2¾	F	2.15	0.22	.14	.93	.83
233	G-3½	B	2.2	0.27	.12	.80	.71
248	G-5½	B	2.5	0.80	.15	1.01	.91
313	T-3¼	C	28	0.04	.30	1.99	1.78
327	T-1¾	G	28	28	.80	5.30	4.77
428	G-4½	B	12.5	0.25	.12	.80	.71
432	G-4½	B	18.0	0.25	.14	.89	.80
433	G-4½	C	18	0.25	.14	.89	.80
605	G-4½	B	6.1	0.50	.15	.99	.89
1133	RP-11	D	6–8	32†	.33	2.06	1.82
1188	RP-11	E	6–8	50/32†	.60	3.74	3.32
1446	G-3½	B	12	0.20	.15	.99	.89
1447	G-3½	B	18.0	0.15	.19	1.26	1.13
1449	G-3½	B	14	0.20	.15	1.01	.91
1458	G-5	C	20	0.25	.15	.99	.89
1477	T-3	B	24	0.17	.40	2.65	2.38
1487	T-3¼	B	12–16	0.20	.17	1.13	1.01
1488	T-3¼	C	14	0.15	.17	1.13	1.01
1490	T-3¼	C	3.2	0.16	.12	.80	.71
1493	S-8	E	6.5	2.75	.85	5.77	5.19
1718	S-11	H	6	1.5	1.55	10.29	9.26
1815	T-3¼	C	12–16	0.20	.17	1.13	1.01
1820	T-3¼	C	28	1.0	.32	2.12	1.91
1829	T-3¼	C	28.0	0.07	.30	2.00	1.80

†Refers to Candle Power rather than Amps. ##A—Single contact miniature flanged; B—Miniature screw; C—Miniature bayonet; D—Single contact bayonet; E—Double contact bayonet; F—Special; G—Single contact midget flanged; H—Double contact miniature bayonet. *Prices Include Federal Excise Tax.

110-120 VOLT REPLACEMENT PILOT LIGHTS

Type	Description	Watts	Length	Net Each
S-6	Candelabra Base	6	1⅞"	17c
S-6	D.C. Bayonet Base	6	1⅞"	26c
S-6	Candelabra Base	3	1⅞"	25c
S-6	D.C. Bayonet Base	3	1⅞"	35c
C-7	Candelabra Base	7	2⅛"	12c
C-7	D.C. Bayonet Base	7	2⅛"	14c
Herzog	Candelabra Base	4	1 5/16"	39c

G-E NEON GLOW LAMPS

Low-voltage lamps of the gaseous discharge type. For use as pilots and indicators in industrial apparatus. Screw base lamps have the required resistor, for operation on the rated voltage, included within the lamp base. Bayonet base lamps are not equipped with resistors.

Order Designation	Wts.	Bulb	Volts (Circuit)	Base	Net Each*	Box of 10 Net*
†NE-40	3	S-14	105–125	Medium Screw	$1.15	$8.05
†NE-34	2	S-14	105–125	Medium Screw	.75	5.25
†NE-30	1	G-10	105–125	Medium Screw	.70	4.90
†NE-32	1	G-10	105–125	D. C. Bay. Cand.	.65	4.55
†NE-57	1/4	T-4½	105–125	Cand. Screw	.70	4.90
†NE-45	1/4	T-4½	105–125	Cand. Screw	.65	4.55
†NE-48	1/3	T-4½	105–125	D. C. Bay. Cand.	.53	3.71
†NE-16	1/4	T-4½	105–125	D. C. Bay. Cand.	.63	4.41
†NE-17	1/4	T-4½	105–125	D. C. Bay. Cand.	.67	4.69
‡NE-2	1/25	T-2	105–125	Unbas. (Wire Tm.)	.09	.63
†NE-51	1/25	T-3¼	105–125	S. C. Bay. Min.	.12	.84

NE-34, NE-40 supplied with red finish at add'l charge of 5c each.
†Unit pkg. qty. 10 lamps, std. pkg. qty. 100 lamps.
‡Unit pkg. qty. 100 lamps, std. pkg. qty. 1000 lamps.

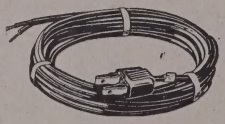
***PRICES DO NOT INCLUDE FEDERAL EXCISE TAX.**

G-E WELDED GERMANIUM DIODES

Welded contact construction provides maximum shock resistance. High ambient temperature curve, improved electrical stability. Low shunt capacity 0.8 mmfd. Low lead-to-lead capacitance. High moisture resistance. Permits flexibility of application. Small physical size, requires no more space than a 1 watt resistor. Minimum life expectancy 10,000 hours under normal conditions and maximum ratings. Eliminates hum experienced with former rectifier tubes. Self-healing under temporary over-voltage conditions.

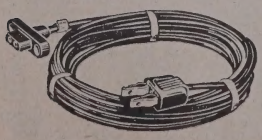
Retma No.	GE No.	Net Each	Category	Retma No.	GE No.	Net Each
1N48	.....	$ .66	General Purpose	1N63	.....	$3.07
1N51	.....	.51	General Purpose	1N75	.....	2.67
1N52	.....	1.40	General Purpose	.....	.....	.....
1N64	.....	.47	TV	1N65	.....	.67
1N69	.....	.90	JAN	1N70	.....	2.40
.....	G6	2.25	VHF	.....	.....	.....
1N72	G7A	.86	UHF	.....	G7D	2.40
.....	G7B	1.20	UHF	.....	G7E	2.40
.....	G7C	1.20	UHF	.....	G7F	1.20
1N81	.....	1.95	UHF	.....	G7G	1.20
1N48	.....	2.47	Matched Pairs	1N63	.....	7.62
1N52	.....	4.41	Matched Pairs	1N75	.....	7.05
1N73	.....	16.20	Quads	1N74	.....	12.36
.....	.....	.....	Power Rectifiers	.....	G10C	3.90
1N91	.....	1.61	Dif. Junc. Rect.	1N93	.....	3.81
1N92	.....	2.85	Dif. Junc. Rect.	.....	.....	.....

BELDEN REPLACEMENT CORDS



Replacement cord size 18, 7 ft. 6 in. long. Extra flexible all-rubber cord with unbreakable soft rubber plug. Brown cover for radios and small appliances.
Belden No. 1725K Net Each **44c**

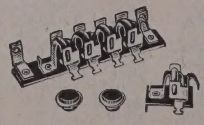
Belden No. 1749K As above but 6 ft. 3 in. long with black cover, for amplifiers, test equipment, etc. Net Each..... **51c**



Television Power Supply Connector Cord. Original equipment on most television sets. Extra-flexible all rubber cord with molded-on rubber connector and unbreakable soft rubber plug.

Belden No. 8874
Net Each..... **54c**

MALLORY BIAS CELLS AND HOLDERS

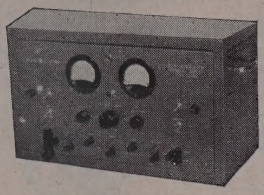


The Mallory Bias Cell is a small acorn-shaped, self-contained device. The metal container or cup is the negative electrode. The black disc is the positive electrode. Used for biasing the first audio amplifier tube in high gain receivers. Also can be used for initial bias in RF, IF and AVC stages. The no-current potential is accurate to within ±10%.

Mall. No.	Description	Net Each	Mall. No.	Description	Net Each
BC-3	1½ volt cell	30c	GB15	Single cell clip.	24c
BC-4	BC-3 w/mtg. stud	36c	GB16	Double cell clip	24c
BC-5	1¾ volt cell	30c	GB17	Clip for BC-3	24c
BC-6	BC-5 w/mtg. stud	36c	.....	.....	.....

General Electric Test Instruments

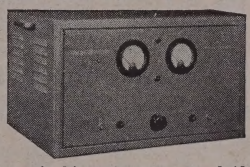
TYPE ST-9-A POWER SUPPLY



Type ST-9A—Output No. 1 regulated, continuously variable, 0-500 volts, max. current 100 ma. No. 2, same as No. 1; No. 1 and No. 2 parallel, 0-500 volts, 150 ma. Unregulated, 650 volts, no load, 200 ma. −75 volts, VR regulation, 0-2 ma. −150 volts, VR regulation, 0-4 ma. Fil. supply, 6.3 volts AC at 10 amps. 0-300 DC milliammeter, 0-500 DC voltmeter; voltage and current metered at No. 1 and No. 2 regulated and unregulated outputs; total current drawn from all outputs can be metered and it should not exceed 200 ma. Overload protection is 3 ampere fuse in the AC line, ⅜ ampere fuse in the DC line. Overload of any degree on the regulated outputs will harm neither the supply itself nor the meters. Ambient temperature 0 to 40 degrees C. Regulation is better than ½% plus ½ volt. Ripple and noise less than 10 mv peak to peak on all regulated outputs. Cabinet size 12½" high, 21" wide, 9½" deep. Power requirement 105-125 volts (210-250 volts), 50/60 cycle, 320 watts maximum.

Type ST-9-A Power Supply—Net Each..... **$350.00**

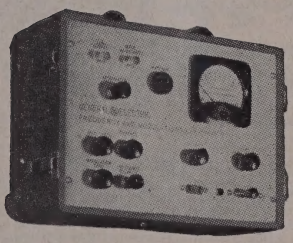
TYPE YPD-2 POWER SUPPLY



Type YPD-2—DC voltage output 250-450 volts (positive or negative may be grounded to chassis). DC current output 0-300 milliamperes. AC output 6.3 volts 10 amperes unregulated. Regulation less than 1% of output voltage from minimum to maximum current. Ripple less than 5 mv peak to peak. Output impedance approximately 2 ohms at 30 cycles, decreases with increasing frequency. Ambient temperature 0-40 degrees C.
Cabinet size 12½" high, 21" wide, depth 9½", weight 103 lbs. Power requirements 105-125 volts, RMS, 50-60 cycle, 350 watts maximum.

Type YPD-2 Power Supply—Net Each..... **$325.00**

TYPE ST-13-A FREQUENCY AND MODULATION METER



Type ST-13-A is a two channel portable equipment designed to meet the needs of FM Radio Communications field. Measures both carrier frequency deviation and square wave modulation, direct-reading on two-range 3½" meter. Provides two RF outputs for receiver testing and alignment. Low output is adjustable down to 1 microvolt, high output adjustable from about 100 microvolts to several thousand, depending on frequency. Meter can be zeroed to the transmitter frequency for modulation without disturbing the accuracy of the carrier reference oscillator.

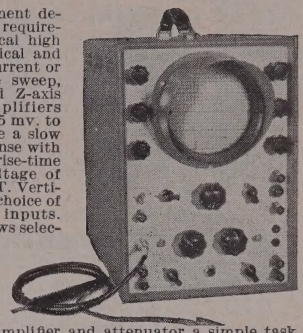
SPECIFICATIONS—**Frequency Ranges:** Specify 1 or 2 in following ranges, 25-50 MC, 72-76 MC, 148-174 MC. Quartz crystal operating range, 4-6 MC. **Reference Oscillator Accuracy:** .001% from 32° to 122° F. **Modulation Accuracy:** ±5% plus 200 cycles. **Meter Ranges:** 0-10 Kc and 0-20 Kc. **Inputs:** 18" collapsible whip antenna, 50 ohm BNC connector. **Outputs:** Low RF output adjustable around 1 microvolt; high RF output adjustable from about 100 to several thousand microvolts. **Tubes:** 2-1L4, 2-1U4. **Power (Internal Batteries):** 2-45 volt batteries, 4-1.5 batteries. **Case:** Gray plastic covered wood size 8⅞" x 11⅛" x 6". Weight 12½ lbs.

Type ST-13-A Frequency and Modulation Meter— **$250.00**
Single Frequency. Net Each.....
Type ST-13-A Frequency and Modulation Meter—Dual Frequency. Net Each..... **$275.00**

RADIATION MONITOR 4SN11A3

Completely self-contained device for measuring x-ray and gamma radiation essentially independent of energy level. Indefinite shelf life, self-charging (by turning upside down), sealed to minimize errors due to humidity. High sensitivity—0 to 20 milliroentgens. Individually calibrated from radium source. Essentially independent of energy level over a wide range. Composed of an ionization chamber, a voltmeter and an electrostatic generator. X-ray or gamma radiations ionize the air inside chamber. Size: 4" diameter x 6" high. Weight, 9¾ ounces. Completely self-contained, no tubes, batteries or external power supply. **GE Type 4SN11A3**—Net Ea. **$49.50**

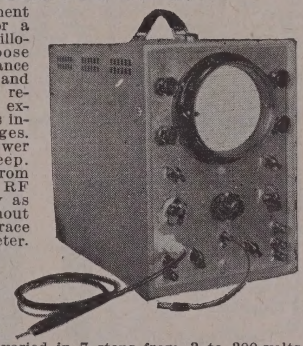
OSCILLOSCOPE ST-2B



A high quality 5" instrument designed to meet the broad requirements of the lab. Identical high gain direct coupled vertical and horizontal amplifiers, recurrent or triggered gas tube type sweep, amplitude calibrator and Z-axis modulation input. Amplifiers capable of handling from 5 mv. to 500 volts r.m.s. and have a slow roll-off in frequency response with no overshoot on fast rise-time pulses. Accelerating voltage of 1800 volts applied to CRT. Vertical selector switch allows choice of probe, cal., AC or DC inputs. Horiz. selector switch allows selection of AC, DC, calibration, ±Int. sync, ±Line sync, ±Ext. sync and an eighth position called "Set" to switch sweep generator output to vertical amplifier to make alignment of horizontal amplifier and attenuator a simple task. Frequency Response to 400 kc, not more than 50% down at 700 kc. CRT in rubber housing. 15½" x 17" x 10". Weight 45 lbs. 105-125 volts, 50/60 cps, 120 watts.

GE Type ST-2B1—With 5UP1 CRT. Net Each..... **$495.00**
GE ST-2B2—5UP7. Net **$497.50; ST-2B3**—5UP11..**$499.25**
TYPE 103J229G1—Low capacity probe for ST-2B. Net..**$9.95**

OSCILLOSCOPE ST-2C



A high quality 5" instrument designed to fill need for a portable, wide-band oscilloscope for general purpose work. Useful for maintenance of microwave installations and TV stations. Wide band response, good sensitivity, exceptional stability, Z-axis input, calibrating voltages provided. Regulated power supply. Hard tube sweep. Select 3 levels of input from binding posts or from RF probe. Attenuation by as much as 1000 to 1 without discrimination. Expand trace several times tube diameter. Direct coupled hor. and vert. amplifiers, designed for quick recovery from overload. Scope can be used to view signals to 7mc. A calibrated voltage source available to aid in amplitude measurement, varied in 7 steps from .3 to 300 volts peak-to-peak. Frequency Response (Vert.) 20 cps to 3 mcs, +0, −30%; (Hor.) 10 cps to 100 kc +0, −30% any setting. 15½" x 10" x 17". Wt., 43 lbs. 105-125 volts AC, 120 watts.

GE Type ST-2C—With all tubes and CRT. Net Ea... **$374.25**
TYPE 103J229G2—Low capacity probe for ST-2C. Net Ea. **9.95**

GERMANIUM DIODE CHECKER ST-12A

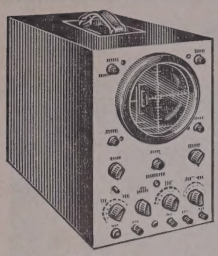
High quality, precision-engineered portable instrument, extremely versatile. Two sets of test clips, one for diodes with leads and other for diodes with pin in each end. Designed to protect instrument against shorts. Places variable, accurate DC voltage across diode and reads resulting current on second meter. Forward and inverse circuits separate to test in both directions by moving lever switch. Ready reference chart gives manufacturer's limits for forty common diodes. Also useful as ohms checker (10 ohms-6 megs), accurately metered power supply, or checking leakage current of capacitors. 10" x 11" x 6". Wt., 8 lbs. Net.. **$169.50**

BINARY SCALER 4SN1A4

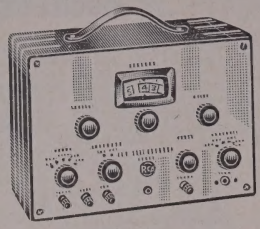
Designed to provide a scale of two in a compact, self-contained, plug-in unit. Industrial counting, interval timing, repeat cycling, photographic printing, speed for all ordinary nucleonic and computer applications. Rugged, long-life design. Compact, self-contained, interchangeable. Temperature independent from 0 to 70° C. 5963 Twin Triode designed for long life, has premium 10,000 hour tungsten heater. Two pulse resolution is four microseconds. Fits standard octal socket. Triggers with negative pulse over wide range of supply voltage. Max. speed, 200kc for binary and decade operation. 3⅞" x 1⅜" x 1⅜". Net Each..... **$16.95**

RCA Test Equipment

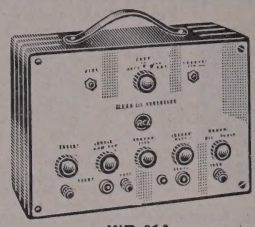
TEST EQUIPMENT FOR COLOR TELEVISION



WO-78A



WR-36A



WR-61A

WG-295

MODEL WO-78A WIDEBAND OSCILLOSCOPE

Wide Band frequency response: flat, within −1 db, from 3 cps to 4.5 mc, with direct sensitivity of 0.1 volts peak-to-peak/inch. Narrow band: flat, within −3 db, from 3 cps to 500 kc, with direct sensitivity of 0.01 volts peak-to-peak/inch. Built-in calibrating voltage and attenuator for measuring actual input voltage. 14 position vertical attenuator; horizontal amplifier flat, within −6 db, from 3 cps to 1.0 mc, with sensitivity of 0.2 volts peak-to-peak/inch. Horizontal trace expansion is 3 times screen diameter. Easily measures voltage of any portion of any waveform. Limiter tube in sync circuit eliminates need for adjusting sync amplitude.
Model WO-78A Wideband Oscilloscope—Net Each..... **$425.00**

MODEL WR-36A DOT-BAR GENERATOR

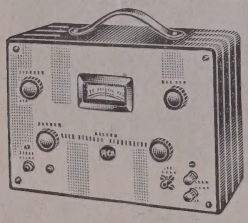
Provides a pattern of optimum-size rectangular dots for making all convergence adjustments in color receivers. Also provides a choice of horizontal bars, vertical bars or cross-hatch bars for linearity adjustments in color and black-and-white receivers. Provides white dots on black background, approx. ⅜″ x ⅜″, as viewed on a 15″ tube. Both modulated RF and video output are provided. RF output continuously turnable over channels 2 to 6, with adjustable amplitude. Plus or minus video output of approx. 5 volts provided for feeding into video amplifier of color or black-and-white receivers.
Model WR-36A Dot-Bar Generator—Net Each..... **$147.50**

MODEL WR-61A COLOR-BAR GENERATOR

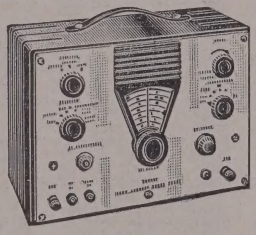
Provides crystal-controlled picture-carrier, color-subcarrier and sound carrier frequencies on channel 3. Crystal controlled color bar and horizontal sync pulse. Unmodulated sound carrier insures accurate tuning of receiver, checks sound rejection and for presence of beat interference. Pushbutton permits temporary elimination of sound carrier. Luminance signals at edges of color bar to check "fit" or registration. Pushbutton controlled brightness signal checks possible shift of hue in bright areas of high lights. Amplitude of subcarrier adjustable by front panel control. Provides plus or minus color video signals. Built-in rectifier circuit provides demodulated output signal, facilitates measurement and adjustment of sync and subcarrier amplitudes.
Model WR-61A Color-Bar Generator—Net Each... **$247.50**

MODEL WG-295A VIDEO MULTIMARKER

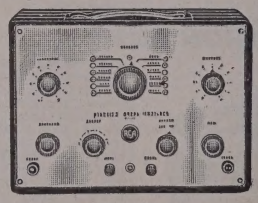
For convenience and speed in marking the video response curves, the WG-295A provides 5 simultaneous absorption-type markers accurately set at the following color frequencies: 0.5 mc (for Q filter), 1.5 mc (for I filter), 2.5 mc (for band-pass filter), 3.58 mc (for color subcarrier frequency), 4.5 mc (sound-trap frequency). Each of the frequencies may be identified by touching the core responding contact in the MultiMarker. Connects between the IF/VF output on sweep generator.
Model WG-295A Video MultiMarker—Net Each..... **$24.95**



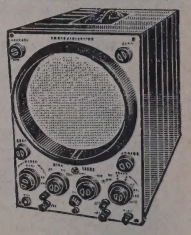
WR-86A



WR-89A



WR-59C



WO-56A

MODEL WR-86A UHF SWEEP GENERATOR

Designed for production line and general service application on UHF receivers, converters, tuners, filters, etc. Provides excellent sweep linearity and a maximum amplitude variation of 0.1 db/mc combined with large sweep width. Freq. Range (cont. variable): center frequencies from 200-950 mc. Sweep Width (cont. variable): 10% of indicated dial freq. up to 750 mc; 75 mc from 750-950 mc. Piston type attenuator, range, 60 db. Output impedance 50 ohms. 105-125 volts, 60 cps, 60 watts. 13½″ long, 9¾″ high, 7½″ deep. Weight, 14 lbs. Blue-grey hammerloid. Complete with RF output cable (4-ft.), WG-296 50-300 ohm padded balun and instruction book.
Model WR-86A UHF Sweep Generator—Net Each. **$275.00**

MODEL WR-89A MARKER GENERATOR

Will furnish RF carrier of crystal accuracy for use in alignment of TV receivers, communications equipment and other equipment in the 19-260 mc range. Continuously tunable; may be calibrated at 2.5 mc intervals throughout the range. Separate crystal oscillator provides fixed 4.5 mc for aligning sound IF amplifiers and FM detectors. Useful also as bar-pattern generator, a heterodyne frequency meter (with external RF signal) or a rebroadcast transmitter (when video and sync information from TV receiver is fed in). Front-panel control permits selection of 4.5 mc modulation for imposition on output frequency; simultaneous modulation at 4.5 mc and 600 cps; 600 cps modulation and 100-150 kc modulation for producing vertical bars.
Model WR-89A Marker Generator—Net Each..... **$242.50**

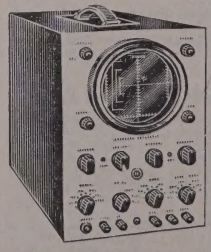
MODEL WO-56A OSCILLOSCOPE

Preset fixed positions for TV vertical and hor. waveforms. "Plus and Minus" sync for easy lock-in of "upright" or "inverted" pulse waveforms. Line-freq. sweep and sync with phasing. Frequency response of both amplifiers flat within −2 db from DC to 500 kc; within −6 db at 1 mc. Useful beyond 2 mc. Square wave response—no tilt and overshoot using DC input position. Less than 2% tilt and overshoot using AC input position. Both amplifiers equipped with frequency-compensated and voltage calibrated attenuators. Peak-to-peak calibrating voltage source. Retractable light shield for good trace visibility. CRT enclosed in hi-quality magnetic shield to minimize hum pickup. Direct coupled vertical and horizontal amplifiers. Push-pull throughout. High amplifier output and gain—enough to provide 3 times horizontal trace expansion with provision for centering trace. 13⅜″ high, 9″ wide.
Model WO-56A Oscilloscope—Net Each..... **$274.50**

MODEL WR-59C TV SWEEP GENERATOR

For visual alignment and repair of TV tuners, etc. Pre-set switch positions for all VHF TV channels and a continuous tuning from 300 kc to 50 mc. High output voltage flat and free from spurious responses. Fundamental signals are generated on all channels. Special blanking circuit produces zero reference line for quantitative gain measurements and for balancing discriminator circuits. Phase-controlled sweep voltage at power-line frequency for 'scopes lacking sweep and phase controls. Dual-piston attenuator with range down to 5 microvolts. TV channels 2 to 13 preset. IF, 50 kc-50 mc for continuous tuning. Sweep width continuously variable for both IF and RF ranges. Output, 0.1 v. RMS min. Max. attenuator ratio: RF, 20,000:1; IF, 4000:1. Hor. phase sweep adjust. range, 160°. 9¾″ high, 13½″ wide, 7½″ deep. Includes balanced, 300 ohm output cable and IF/VF output cable.
Model WR-59C Generator—Net Each..... **$274.50**

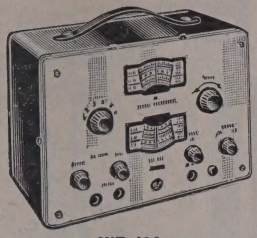
MODEL WO-88A OSCILLOSCOPE



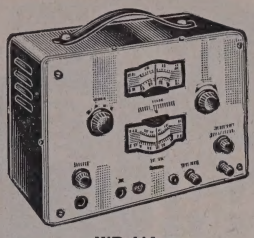
True square-wave response obtained by adequate band-width, negligible phase shift and a complete absence of peaking circuits. Vertical and horizontal sync pulses, as well as other complex wave forms, are reproduced with laboratory fidelity. Uniform frequency response is maintained over the entire range of the attenuators. Push-pull circuitry in both stages of the vertical amplifier minimizes the "line bounce"; direct coupling provides instantaneous "recovery" time. Voltage measurements and waveshape observations can be made simultaneously. A front panel terminal provides a 1-volt peak-to-peak reference voltage. Frequency Response, flat from DC to 100 kc; within −3 db at 500 kc; within −10 db at 1 mc. Plus or minus sync; 60 cps sweep and phasing; shield around CRT gun. WG-216B low cap, probe, direct probe and cable and ground lead. Size 12½″ high, 16½″ deep, 9″ wide. For 105-125 volt, 50-60 cycle operation.
Model WO-88A Oscilloscope—Net Each..... **$149.50**

4-54D

RCA Test Equipment



WR-49A



WR-44A

MODEL WR-49A RF SIGNAL GENERATOR

Designed for radio, TV and other applications requiring a CW or modulated RF signal of from 85 kc to 30 mc. May be modulated internally by a 400 cps oscillator or externally through a front-panel connector. Six ranges cover frequencies from 85 kc to 30 mc. Separate range switch and fine tuning control. Copper-plated steel case provides optimum RF shielding. RF attenuator system has "high" and "low" output terminals and coarse and fine adjustments. Supplied with specially designed shielded output cable, with ground clip attached. Designed for shop or field use, this instrument may be used for alignment and signal tracing of AM or FM receivers, alignment of low frequency TV IF's and other TV tracing and repair.

Model WR-49A RF Signal Generator—Net Each..... **$59.50**

MODEL WA-44A AUDIO SIGNAL GENERATOR

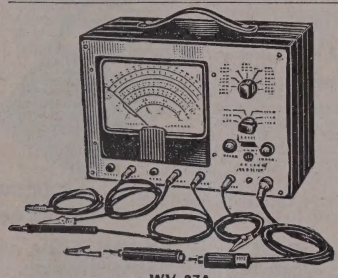
Designed for general audio, radio and other applications where a sinusoidal audio frequency up to 15 v. RMS is necessary. Will furnish output signal from 11-100,000 cps, made possible by novel re-type oscillator, controlled by delayed age circuit. The output varies less than 1 db through tuning range. Total harmonic distortion, 2% or less below 15,000 cps. Hum level less than 0.1% of rated output. May be used in both low and high impedance circuits. Front-panel terminal provides 6 v. AC signal at line frequency for use in intermodulation testing. Can be used in finding impedance of LC combinations and in determining the frequency or speed of vibrating or rotating bodies.

Model WA-44A Generator—Net Each..... **$87.50**

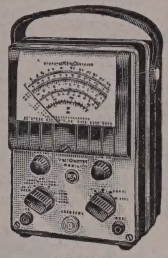
MODEL WP-25A TV ISOTAP

Avoids wasted time and uncertainty in TV trouble-shooting. Use the 500-volt-ampere autotransformer for testing power transformer types of TV receivers. Use the 275 va isolated secondary for testing transformerless TV and AC-DC radio sets. Service sets at normal line voltage or at extra-high voltage for breakdown tests. Avoids shock hazard. Voltage range, 105-130 volts. Switch positions, 105, 110, 115, 120, 125 and 130 v. Output Voltages, (direct receptacles; with 500 max. va load and selector set to value of supply line voltage), LOW (105 v.), MED. (115 v.), and HIGH (130 v.). Regulation, direct receptacles, 1.5%; isolated receptacles, 6%. 5¾" high, 5" wide, 4⅜" deep. Weight, 12 lbs. Dark cobalt finish.

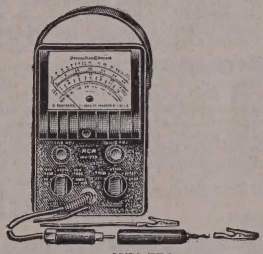
Model WP-25A Isotap—Net Each..... **$17.95**



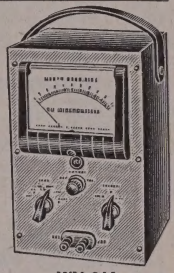
WV-87A



WV-97A



WV-77A



WV-84A

MASTER VOLTOHMYST* MODEL WV-87A

Features 7½" meter, ±1% multiplier and shunt resistors, ±2% meter movement, zero-center scale adjust, DC polarity reversing switch and sturdy metal case. **DC Voltmeter:** RANGES: 0 to 1.5, 5, 15, 50, 150, 500, 1500 volts; 11 megs input resistance; 7.3 megs sensitivity on 1.5 volts range; ±3% overall accuracy. **AC Voltmeter:** RANGES: (RMS) 0 to 1.5, 5, 15, 50, 150, 500, 1500 volts; (Peak-to-peak) 0 to 4, 14, 42, 140, 420, 1400, 4200 volts; overall accuracy, ±5% full scale; frequency response 30 cps to 3 mc. **Ohmmeter:** 0 to 1000 megohms (7 ranges) Rx1, x10, x100, x1000, x10K, x100K, x 1 meg. **DC Meter:** 0 to 0.5, 1.5, 5, 15, 50, 150, 500 ma.; 0 to 1.5, 15 amps; accuracy overall, ±3% full scale. **Tubes:** 2-6AL5, 1-12AU7. **Battery:** 1-VSO36. 105-125 volts, 50-60 cps. Weight, 8 lbs. Complete with direct probe and cable, DC/-direct probe, ohms probe and cable, positive current lead, negative current lead, ground lead and instructions.

Model WV-87A Master Voltohmyst*—Net Each.... **$112.50**

SENIOR VOLTOHMYST* MODEL WV-97A

Especially useful as TV signal tracer. Features high-Z, high frequency, full-wave rectifier; uniform "3 to 1" ratio between scales, wide frequency range (30 cps to 3 mc with WG-218 cable). All standard voltohmyst* features. DC, AC and Ohmmeter ranges same as WV-87A above. Does not include direct current ranges. Tubes and battery same as WV-87A. 7⅞" high, 5¾" wide, 4½" deep. Weight, 5½ lbs. Includes direct probe, DC/direct probe ohms lead, ground lead and instruction booklet.

Model WV-97A Senior Voltohmyst*—Net Each..... **$67.50**

JUNIOR VOLTOHMYST* MODEL WV-77A

Embodies all standard Voltohmyst* features. **DC Voltmeter:** RANGES: 0 to 3, 12, 60, 300, 1200 volts, 11 meg. input resistance; accuracy ±3% on + volts, ±5" on − volts. **AC Voltmeter:** RANGES (RMS) 0 to 3, 12, 60, 300, 1200 volts; accuracy, ±5% full scale. **Ohmmeter:** five ranges, 0 to 1000 megs; center scale values 10, 1000, 10K ohms, 1 meg, 10 megs. **Tubes:** 1-12AL5, 1-12AU7. **Battery:** 1-VSO35. 8" high, 5⅜" wide, 4½" deep. Complete with direct probe and cable, DC/direct probe, ground cable and instructions. Weight, 4 lbs.

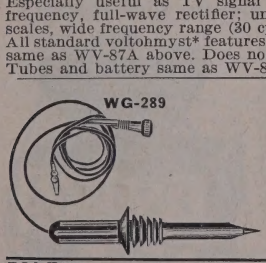
Model WV-77A Junior Voltohmyst*—Net Each..... **$47.50**

ULTRA-SENSITIVE DC MICROAMMETER WV-84A

Battery-operated vacuum-tube micrommeter. 6 scales for reading currents from 0.0002 uamp; a ratio of 5 million to 1. Large-face meter with wide scale divisions. Movement suitably damped to eliminate overswing and oscillation. **Ranges:** 0 to 0.01, 0.1, 1 microamp; 0 to 10, 100 and 1000 microamps. 9½" high, 6¼" wide, 5¾" deep. Weight, 9½ lbs. with batteries. Includes instructions and two multiplier resistors.

Model WV-84A Microammeter—Net Each..... **$100.00**

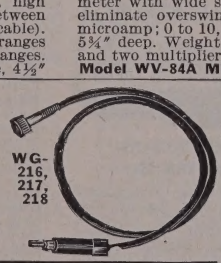
RCA PROBES



WG-289

WG-264

WG-291

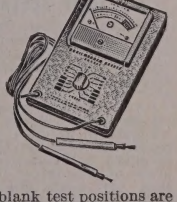


WG-216, 217, 218

RCA Type	Description	Net Each
WG-216B	Lo-capacitance probe, use with WG-218, WO-56A, WO-57A-B.	$7.00
WG-217	DC probe for WG-218 below. Use with VoltOhmysts.*	2.75
WG-218	Direct probe & cable. Use with WO-56A, 57A-B & VoltOhmysts.*	3.75
WG-220	Direct probe & cable. Use with scopes having input binding posts.	3.75
WG-222	Slip-on type, built-in 1 meg. isolating resistor and switch for measuring DC or ohms without changing probe. Slips on front of either WG-218 or WG-220.	3.50
WG-264	Crystal-diode probe for WG-218 above. Use with VoltOhmysts*.	7.75
WG-289	High-voltage probe with microphone-type connector.	7.15
WG-290	High-voltage probe with phone-tip plugs.	7.15
WG-291	Crystal-diode demodulator probe for WG-218 & WG-220 above.	7.95

*Reg. Trade-Mark, U.S. Pat. Off.

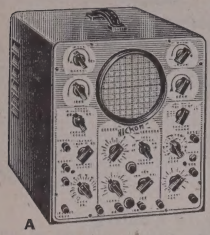
RADIO BATTERY TESTER WV-37A

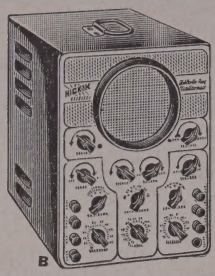


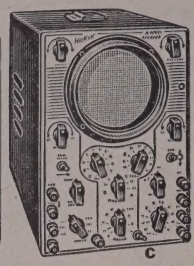
Test portable-radio batteries under actual load or "turned-on" conditions without placing batteries in set. The WV-37A has a built-in load circuit that makes this possible. Selector switch on front panel with 9 positions to accommodate popular portable radio batteries ranging from 1.5 volts to 90 volts. 8 blank test positions are provided for setting up test conditions of your own choosing, for testing additional battery types. Red and black plastic test prods permanently attached to tester. Double meter-scale indicates both voltage and condition of battery: Dimensions: 9½" l., 6" w., 1½" d. Wt., 3½ lbs.

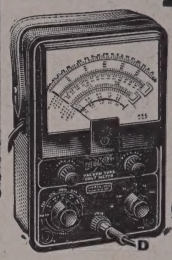
No. WV-37A—Net Each..... **$24.95**

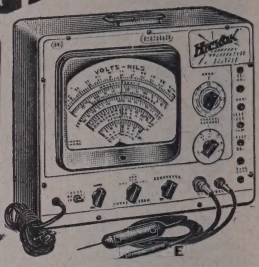
Service Test Equipment by HICKOK


A


B


C


D


E

MODEL 640 OSCILLOGRAPH (FIG. A)

Wide band, (0-4.5 mc. down 3 db) amplifier. Freq. Response O-1mc (3 db point) in HIGH. O-4. in LOW. Max. Imput 1000v peak. Imput Impedance 2 megs, 50 mmf. Built-in calibration voltages 100, 10, 1, & .1 volts. TEST SIGNALS: Line Freq.: 5v RMS inch. Sawtooth: from front panel. Direct connection to both hor. and vert. deflection plates. Expandable sweep 6 times expansion, equiv. to 30" screen dia. TV fixed freq.; 30 and 7,875 .105-125, V-AC. Portable steel case, 14" x 11½" x 19", Wt. 19 lbs.
Hickok Model 640—Net Each..... **$355.00**

MODEL 665 OSCILLOGRAPH (FIG. B)

High-quality 5" scope for any TV job. Range, 0.5 cps-700kc down 3 db. Square wave response flat 60 cps-100kc. Tilt, less than 1%; overshoot, less than 2%. Accelerating voltage, 1775. Push-pull vertical amp., sensitivity, .020 rms. v./in.; hor amp., .030 v./in. Vert. Input Imp., 2.2 megs at 15 μμf; hor., .1 meg at 52μμf. External plate connections. Sweep osc. range: 18 cps-50kc. Safety fused; CRT shock mounted; drift-free. 105-125v. AC, 35 watts. 13" x 17¼" x 9¾". Shipping weight, 30 lbs.
Hickok Model 665—With 7 tubes and 5UP1 CRT. Net **$129.50**

MODEL 670 OSCILLOGRAPH (FIG C)

Hickok Model 670 is designed with DC amplifiers to provide perfect square wave response. Sensitivity: 0.01 RMS/inch. Demodulator circuit for viewing modulation on RF signal; recurrent linear sweep, 3 to 50,000 cps.; reversing switches for both horizontal and vertical deflection. Fixed sweep frequency for hor. and vert. wave forms; negative and positive sync; line frequency phasing control (approx. 180°). Direct-coupled, balanced push-pull amplifiers. Provision for Z-axis modulation. Wide band vertical amplifier to beyond 2mc. Steel case, 9¼" x 12¼" x 18" D. Shipping Weight. 35 lbs.
Hickok Model 670—Net Each..... **$244.00**

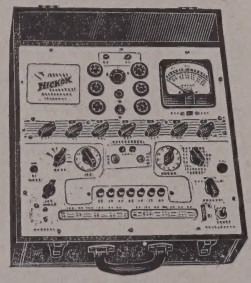
MODEL 215 VACUUM TUBE VOLTMETER (FIG. D)

Includes dual-purpose AC-DC probe. 5" scale. Zero-Center for fast discr. alignment. DC VOLTS: 0-1.5; 3; 12; 30; 120; 300; 1200. OHMS: x1; x10; x100; x1000; x10,000; x100M; x1 meg. AC VOLTS (peak-to-peak): 0-1.5; 3; 12; 30; 120; 300; 1200. PEAK-PEAK: 3200 volts max. Flat from 40 cps-3.5mc. INPUT IMPED.: with probe, 30 megs shunted by 150 μμf. Accuracy ±5% full scale. Includes test leads. 105-125 VAC. Insulated case, 5¾" x 8⅜" x 4½".
Hickok Model 215—Net Each..... **$67.50**

MODEL 539-A TUBE TESTER

Dynamic Mutual Conductance with tube readings in micromhos. All tubes including miniature and subminiatures. Permits choice of 3 AC signals; 0.25, 0.5 & 2.5 volts. Vernier meter reading of grid voltages. Built-in, optional self-bias arrangement. Provision for insertion of plate milliammeter. Separate AC line meter. DC grid bias, DC plate and screen voltages. Strong portable carrying case with detachable cover. 16¾" x 18⅜" x 7½". Shipping wt. 39 lbs. Net Each... **$287.00**

Also available for same price in steel bench display case. Order Model 539-D.



MODEL 533-AP TUBE TESTER

Dynamic Mutual Conductance tester with new feature that foretells future life of tube. Tests all latest tubes except CRT's. Scale readings in 3 ranges: 0-3000, 0-6000, 0-15000 or in terms of bad, questionable, good. Tests tubes under conditions of actual use. Equipped with push buttons, metal panel and selector switches. Roll chart tube data selector; separate pin-jacks for external grid and plate connections. Include minimum and sub-minimum sockets. 16¾"x18⅜"x7½". Wt. 35 lbs. Net Each **$185.80**

Model 533-AC in steel bench display at same price.

MODEL 209A VACUUM TUBE VOLTMETER (FIG. E)

With Zero Center Scale—Electronic Volt-Ohm-Capacity Milliammeter has extra long, easy-to-read 9" meter scale; low capacity, high frequency probe. With all necessary leads. Flat frequency response to 300 MC. Resistance: 1/10 ohm to 10,000 megohms. Measures voltage to 1200 DC, 300 AC. Capacity: 1 mmf to 1000 MF. High input impedance. 115 V. AC. 14" x 16½" x 8". Shipping weight 19 lbs. In Portable or Display Case.
Hickok Model 209A—Net Each..... **$132.50**

MODEL 450 VOLT-OHM-MILLIAMMETER

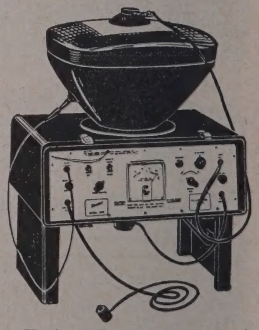
Highly sensitive, compact, portable Volt-Ohm-Milliammeter that fits into a pocket. Thinnest instrument of its kind. Large 5" Hickok built meter and guaranteed insulated, shock resistant case. **Ohms Per Volt:** 20,000 DC, 5000 AC. **Ohms:** 0 to 1000 meg. (low range ohm scale, 5 ohms center). **Current:** 50 microamps to 10 amps. **Decibels:** −30 to +50. **Volts:** AC-DC, 0 to 5000 in 6 ranges. All pin jacks at bottom of panel. Battery operated. Wt. 2¾ lbs., Shpg. Wt. 5 lbs. 5¾" x 2½" x 2¾".
Hickok Model 450—With test leads. Net Each..... **$46.50**
Carrying case for above. Net Each..... **$8.80**

MODEL 600A TUBE TESTER

Mutual Conductance type. Designed for speedy, highly accurate radio servicing. May be used for lab and industrial applications. Tests future life, gas content; reads directly in micromhos. Applies separate voltage to each element; and easily detects weak tubes. Replaceable roll chart gives all data. Black leatherette. 16¾" x 7½" x 11¾" For 110-130 volts, 50-60 cps. Shpg. Wt. 21 lbs.
Hickok Model 600A—Net Each..... **$164.00**

Hickok Model 605A—Combination tube tester and set analyzer. Includes V.O.M. section in 600A tester. Net..... **$189.50**

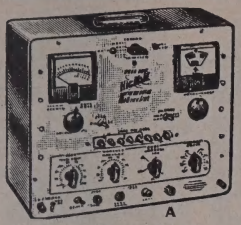
NEW MODEL 590 PICTURE TUBE TESTER

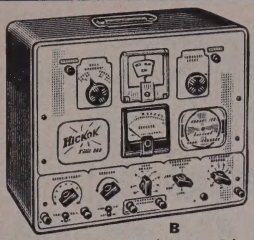


Provides complete testing of TV picture tubes when used with any standard Hickok Dynamic Mutual Conductance Tube Testers. Checks tube for gas, brilliance, emission, shorts, grid control, leakage, condition of phosphor, possible ion burns and probable future life of tube. It lights the tube and puts an actual raster on the face of the tube—no other tube does this. It tests all sizes of electromagnetically deflected picture tubes, both electrostatic and magnetic focus, glass or metal shells, under operating conditions. Tests light output with photoelectric cell, to determine damage to phosphor. Has definite and accurate rejection limits of value in demonstrating overall condition of tube to customer. High voltage, 7000 volts, is sufficient to light aluminized screens. Horizontal sweep frequency is 15,750 cps, nominal sawtooth; vertical is 60 cycle sinusoidal. In convenient red and black, brass fitted carrying case 19½" wide x 18" deep x 7½" high. Net weight 25 lbs., shipping 33 lbs. 105-125 volt, 50-60 cycle AC. 60 watts.
Hickok Model 590—Complete with all necessary leads. Net Each..... **$218.50**

87-54C

Service Test Equipment by HICKOK


A


B

NEW 650C WHITE DOT GENERATOR (FIG. A)

Compatible for Color or Black and White TV Receivers. The new White Dot Video Generator is an absolute must for accurate registration adjustment of the three color guns in the new TV color tubes. Simple to operate. Just connect the 650C to the antenna of the color TV receiver and adjust the controls until white dots are produced on the receiver screen. Adjust the color guns until the colored rings disappear from around the white dots. The generator also may be used to adjust the focus, convergence, centering of individual beams, purity yoke, dynamic convergence, linearity and aspect ratio.

Includes All Features of Hickock Model 650 Videometer.

Accurate bar or dot pattern provided. Output directly calibrated in microvolts. Video amplifier with gain of 0-10 db. Crystal controlled timer for pulses of 60, 900, & 15,750 cps, 315kc; singularly or in any combination; positive or negative output. Pulses used directly, metered in peak-peak volts or to modulate RF osc. which covers all TV channels in 2 bands, all on fundamentals 105-125v., 60 cps. 60 watts at 115v. Blue Hammertex steel case, 13"x16"x7". Inc. test, output and grd. leads, coax cable. Wt. 29 lbs.

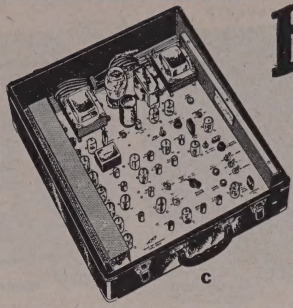
Hickok Model 650C White Dot Generator— Net Each **$318.90**

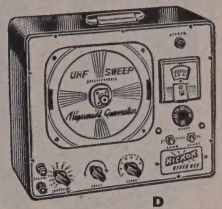
Conversion Kit. Converts Model 650 Universal Video Generator to Model 650C. Completely wired. Net Each **$5.00**

MODEL 695 VHF-FM GENERATOR (FIG. B)

For TV-FM servicing. Thorough check of all IF's permitted by triple-shielding and 0-50mc heterodyned output. Output, .15v.; fundamental of .5v. on all channels. Blanking of osc. gives reference base line. 0-12v. variable DC bias voltage is metered. Continuously variable tuning; 170° of phasing; linear sweep (width, 0-15mc, ±3mc depending on freq.). 100 db atten., .5v. to 5μv. Output Z, 90 ohms. Self-calibrated. Hairline is movable. With all tubes, leads, instructions. 16¼" x 13¼" x 8". Shpg. weight, 31 lbs.

Hickok Model 695— Net Each **$265.00**


C



D

NEW MODEL 655XC COLOR BAR GENERATOR (FIG. C)

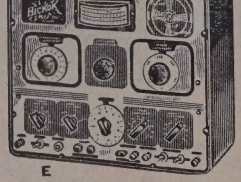
Produces a standard 100% fully saturated NTSC color bar pattern on color TV sets to insure full compatibility regardless of future receiver design. Sets aligned with this type of signal will operate with proper colors on the screen. The color bars will appear on the TV screen from left to right, green, yellow, red, magenta, white, cyan, blue and black. Video output is 0-2 volts peak to peak open circuit, 0-1 volt peak to peak across 100 ohms, positive or negative output. RF output modulated with color bar pattern is available through Channels 4, 5 and 6; sound carrier also is provided. Phase of colors produced is set accurately with precision delay lines. Amplitudes of subcarrier and brightness component set accurately with resistive networks. **Features:** Provision for switching either Y or Chroma on or off; provision for switching on or off either I, Q' R-Y or B-Y. In black leatherette case 16¾" x 18⅜" x 7½" deep. 115 volts, 60 cycles AC, 100 watts.

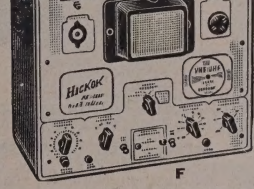
Hickok Model 655XL—Net Weight 34 lbs. Shipping Weight 42 lbs. Net Each **$565.00**

MODEL 697 UHF SWEEP GENERATOR (FIG. D)

For UHF TV servicing. Fundamentals on channels 14-83. All electronic linear sweep. RF output, 0.5v. Sweep width 0.25mc at low end; 0-75mc at high end of band. 0-12v. variable DC bias voltage, calibrated output. Amplitude variation less than .1 db/mc. Reference line through attenuation. RF leakage reduced by triple shielding. 170° phasing. 105-125v., 60 cps. 16¼" x 13¼" x 10". With tubes, leads and instructions. Shipping weight, 31 lbs.

Hickok Model 697— Net Each **$300.00**


E


F

MODEL 610A TV ALIGNMENT GENERATOR (FIG. E)

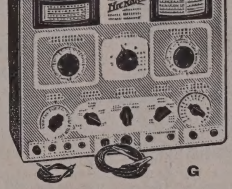
Permits complete visual alignment of TV receivers. Only a scope is required. Overall coverage, 10-25mc, with 0.15mc variable sweep width, for all alignment of RF's to all 12 channels, alignment of sound and video IF's and alignment of traps. Provides both pin oscillator markers and absorption markers, directly calibrated from 20-48mc. Marker injection control. Vernier output control. 5-stage output multiplier control. Provides horizontal sweep voltage (with phasing control). Standby switch. 14" x 16½" x 7". 105-125v. AC. Shipping weight, 35 lbs.

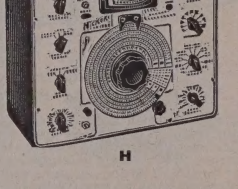
Hickok Model 610A—With 4.5mc crystal. Net Each **$219.00**

MODEL 690 UHF-VHF CALIBRATOR (FIG. F)

This new unit supplies dual markers with any sweep generator. Dial features light beam reflected on glass dial, enabling a greatly magnified screen and marker settings within .05%. No parallax, interpolating or beat-counting. Ranges: 4.25-11 mc, 10-50mc, 50-90mc, 115-225mc. 3rd harmonic on UHF channels 14-47, 4th on channels 48-83. Tuning eye indicator. Complete with 2.5mv. crystal and provision for 2 others, tubes, leads, instructions. 16¼" x 13¼" x 8". Shipping weight, 31 lbs.

Hickok Model 690—105-125v. AC. Net Each **$237.00**


G


H

MODEL 288X SIGNAL GENERATOR (FIG. G)

Hickok Model 288X provides necessary test voltages and frequencies for servicing AM and FM. High FM output, low radiation. Fundamental frequencies, 100 kc, 160 mc. FM section has two separate 7 stage ranges, one for NBFM and the other for wide band. Variable audio output, 0-15 kc. Crystal controlled output, 100 kc and 1000 kc accurate to .01%. DB meter, in 3 ranges, from −10 to +38. 14" x 16½" x 8". Shpg. Wt. 28 lbs. In Portable or Display Case.

Hickok Model 288X—Net Each **$195.00**

MODEL 292X SIGNAL GENERATOR (FIG. H)

Hickok Model 292X furnishes an accurate, dependable source of calibrated RF from 125 kc-120 mc, 150-220 mc on fundamentals. VTVM provides direct output from ½ to 100,000 μv. on all frequency ranges. Can be used as external db meter. Percent of AM can be controlled and indicated. 100 and 1000 kc crystal controlled output, accurate to .01% with special provision made for crystal control at 152-162 mc, accurate to .005%. Precision ground crystals available at specified ultra-accurate frequencies. VFO range 125 kc-240 mc in 8 ranges. Crystal oscillator may be added, accuracy .005%. Provision made for external modulation. Internal modulation available at 400 cps. 1000 kc crystal accuracy .05% included. Metered output: 1 to 100 microvolts 14" x 16½" 8". Shipping Weight 29 lbs. In Portable or Display Case.

Hickok Model 292X—Net Each **$296.00**

Hickok Model 292X-AL—Same as above, but with airline frequencies. Net Each **$326.00**

MODEL 755 NOISE GENERATOR

For measuring signal-to-noise ratio and noise figure in RF and IF amplifiers, etc. Determines source of snow in fringe areas. Zero-center scale. Electronic voltmeter. Ranges, 0-.25-1v. DC. Flat from 10-250mc. Noise figure ranges: 0-17; 0-19; 0-25 db. Output impedance, 50, 75 and 300 ohms. Complete with tubes. 8½" x 11" x 6". Shipping weight, 18 lbs.

Hickok Model 755—Net **$262.00**

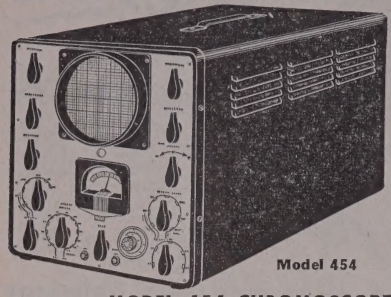
TELEVISION PROBES

Hickok Model TVP-1—Extends scopes for viewing TV circuits where capacitances of ordinary cables would produce inaccurate wave shapes. With 4-ft. heavy duty cord. Net Each **$12.60**

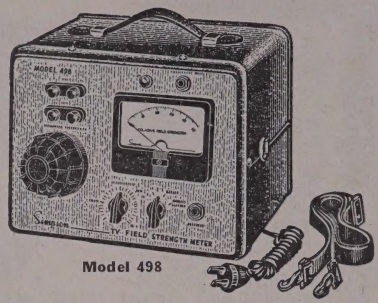
Hickok Models PR-30-KV and PR-30-KVA—Extends VTVM ranges to 30,000 v. DC. PR-30-KV is for Model 209 or 203PR; PR-30-KVA is for 209A. With 4-ft. Cable. Net either model **$11.90**

Simpson — New Test Equipment

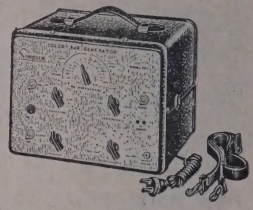
INSTRUMENTS THAT STAY ACCURATE



Model 454



Model 498



Model 430

MODEL 454 CHROMOSCOPE

Every necessary feature for color-TV service, also better than other scopes for black-and-white. Bandpass flat to 5 mc, to show color burst accurately. DC response shows modulation percentage in chroma, Y and sound circuits. Sensitivity of 0.02 volt per inch to obtain full screen deflection when checking low-gain circuits. Accurate peak-to-peak voltage measurements. Fast horizontal sweep, to 50 kc, for expansion of fine wave-form detail and color burst. Compensated decimal step attenuator for faster voltage measurements. Flat vernier attenuator to eliminate waveform distortion. Complete with: Low-capacitance, demodulator, high-voltage capacitance-divider, direct and isolating probes. Unusually complete instruction book for color servicing.

Simpson Model 454 Chromoscope—Net Each..... **$395.00**

MODEL 498 FIELD STRENGTH METER

Answers long-felt need for a combination power line or battery operated field strength meter. **Operates from any one of four sources:** 117 volt, AC; self-contained storage battery; automobile battery; your external battery. Internal battery can be recharged by self-contained charger or from auto battery. Housed in grey hammerloid case with heavy leather handle. **Size:** 8" x 11" x 8½".

Shipping Weight: 15 lbs.

Simpson Model 498-A—117 volts AC only. Net Ea.. **$148.50**

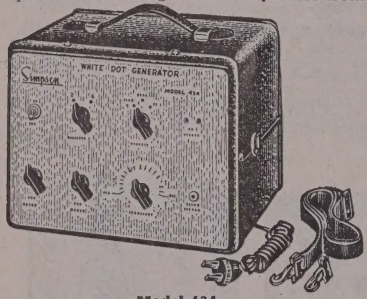
Simpson Model 498-D—117 volts AC and 6.3 volts DC. Net Each..... **$155.30**

Storage battery, 12 ampere-hour capacity. Net Each.... **$9.50**

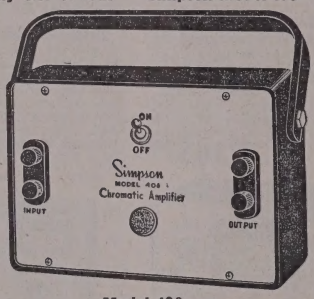
MODEL 430 COLOR BAR GENERATOR

Brings 16 color signals: Red, Green, Blue, White, R-Y, G-Y, B-Y, I, Q, -R, -G, -B, -(R-Y), -(B-Y), -I, -Q. It includes everything needed in a color bar generator including independent saturation and hue colors. RF output can be modulated with above NTSC signals. Video output: for signal injection directly into video system. Ample attenuation.

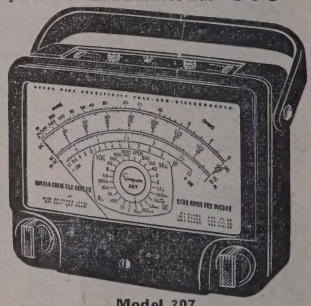
Simpson Model 430—Complete with manual. Net Ea. **$395.00**



Model 434



Model 406



Model 307

MODEL 434 WHITE DOT GENERATOR

Make linearity adjustments of black-and-white TV and linearity and convergence adjustments on color TV receivers with confidence. Vertical and horizontal synchronization assures correct aspect ratio, ample attenuation and 300 ohm RF output. Positive or negative video output, excellent for fast checking transient response of video amplifiers. Grey hammerloid case. **Shipping Wt.:** 15 lbs. 117 volts, 50-60 cycles, 45 watts. Includes operating instructions.

Simpson Model 434 Generator—With shoulder strap. Net Each..... **$147.50**

MODEL 406 CHROMATIC AMPLIFIER

Expands usefulness of all Genescopes to include color TV. Steps up test signal for checking very low-gain circuits. While it is not required for checking many of the chroma circuits in color-TV receivers, technicians will find the unit useful in tests of the I and Q demodulator circuits and the Y amplifier, as well as others. Includes the new Peak-to-Peak High Frequency Probe, Chromatic Probe, and instructions.

Simpson Model 406 Chromatic Amplifier—Net Each. **$31.95**

Chromatic Probe Only—Net Each..... **9.95**

MODEL 307 VACUUM TUBE VOLTMETER

Incredibly accurate, same large, easy-to-read 7" meter as Model 262 volt-ohm-milliammeter. Gives zero center adjustment. **Ranges:** DC VOLTS, 0-1.6-8-40-160-400-1600, 10 meg input impedance, 1 meg isolation in probe. AC VOLTS, 0-1.6-8-40-160-400-1600, 60 cycle input impedance, 260,000 ohms, input capacitance 200 μμf. AC PEAK-TO-PEAK PROBE, 20 volts maximum, frequency range flat 20 kc to 100 mc, input capacity 4 μμf. DECIBELS, −8 to +45 in 4 ranges (zero DB equals .001 watt in 600 ohms). OHMS, 0-100 (10 ohms ctr.), 0-10,000 (100 ohms ctr.), 0-100,000 (1000 ohms ctr.), 0-1 megohm (10,000 ohms ctr.), 0-10 megohms (100,000 ohms ctr.), 0-1000 megohms (10 meg ctr.). **Size:** 7 15/16" x 6" x 2 15/16". Complete with DCV probe, ACV-Ohms probe and ground lead, operator's manual.

Simpson Model 307 VTVM—Net Each..... **$87.50**

Accessory Capacity Divider—Net Each..... **$8.75**

5262 Eveready Neolite Carrying Case—Net Each..... **9.95**

MODEL 355 "MIDGETESTER"

Simpson "Midgetester" is as compact as a package of cigarettes. Size 1" thick, 4½" long and 2¾" wide. Fits into your shirt pocket easily. Fits in an attractive polished styrene case.

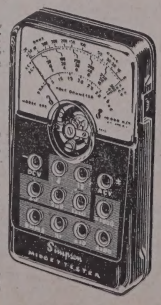
RANGES

AC Volts: 0 to 3 volts, 0 to 12 volts, 0 to 60 volts, 0 to 300 volts, 0 to 1200 volts. (At 10,000 ohms per volt).

DC Volts: 0 to 3 volts, 0 to 12 volts, 0 to 60 volts, 0 to 300 volts, 0 to 1200 volts. (At 10,000 ohms per volt).

Resistance: 0 to 10,000 ohms, 0 to 100,000 ohms, 0 to 1 megohm, 0 to 10 megohms.

Simpson Model 355 "Midgetester"—Complete with test leads and instructions. Net Each..... **$29.95**

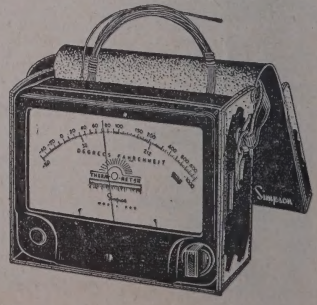


MODEL 388 "THERM-O-METER"

Accurate remote temperature readings from −50° to +1000° F. One scale 7" meter assures legibility; Adjust-A-View handle instantly supports at correct viewing angle. Place convenient thermocouple lead in area or solution to be tested. Hundreds of uses for labs, engineers, etc. With 15' thermocouple attached, internal batteries and instructions.

Simpson Model 388—Net Each..... **$59.50**

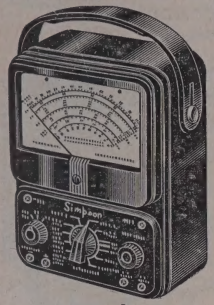
5262 Case—Net **$9.95**

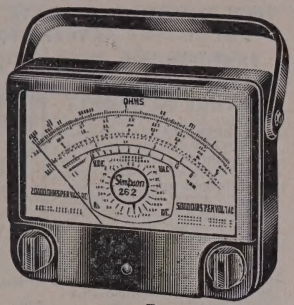


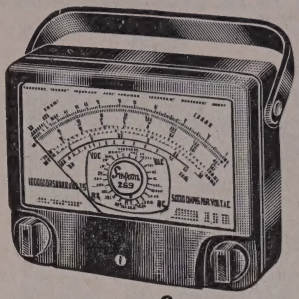
67X-55A

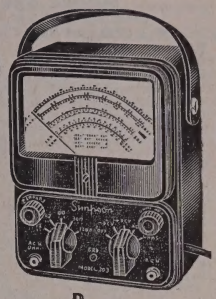
Simpson Test Equipment

INSTRUMENTS THAT STAY ACCURATE


A


B


C


D

FAMOUS MODEL 260 VOLT-OHM-MILLIAMETER—FIG. A
OVER 400,000 IN USE TODAY

Compact, sensitive, rugged. All direct connections, no cabling and complicated wiring. Tests up to 20 megs and as low as ½ ohm. 20,000 ohms/volt, DC; 1000 ohms/volt AC. AC-DC-Output voltage ranges: 2.5, 10, 50, 250, 1000, 5000. Ma., DC: 10, 100, 500. Microamps, DC: 100, amps, 10. Ohms: 0-2000, 200K, 20 megs. —10 to +52 DB in 5 ranges. Shipping weight 3 lbs. Standard case. Battery operated. Heavy bakelite case. Net Each..... **$38.95**
Roll top case (Not Illustrated)—Net Each..... **$46.90**
Leather Carrying Case for Model 260—Net Each..... **6.75**
Eveready Carrying Case for Model 260—Net Each..... **8.75**
25,000 Volt DC Probe—For TV testing. Net Each..... **9.95**

NEW MODEL 262 VOLT-OHM-MILLIAMMETER—FIG. B

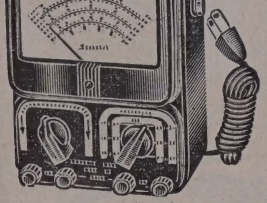
20,000 ohms/volt sensitivity. 33 ranges. Big, 7" dial, compact, 7" case. Only 2 controls. Rugged construction. Accuracy, 3% DC and 5% AC of full scale. Adjust-A-View handle for convenient viewing. **DC Volts:** 0-1.6, 8, 40, 160, 400, 1600, 4000 volts. 20,000 ohm/volt sensitivity. **AC Volts:** 0-3, 8, 40, 160, 800 volts. 5000 ohm/volt sensitivity. **AF Output:** 0-3, 8, 40, 160 volts. 0.1 μfd. internal series capacitor. **DB:** −8 to −11; −.5 to −19; 14.5 to −33.5; −26.5 to −45.5 db. Calibrated for use across a 600 ohm line. **DC Ohms:** 0-500, 5000, 50,000 ohms: 0-.5, 5, 50 megs. **DC Amps.** 0-80, 160 microamps; 0-1.6, 16, 160 milliamps; 0-1.6, 16 amps. Complete with test leads, removable alligator clips, 4000vdc multiplier and manual. Shipping weight, 6 lbs. Net Each..... **$59.50**
40,000 Volt High Voltage Probe—Net Each..... **$12.50**

NEW MODEL 269 VOLT-OHM-MICROAMMETER—FIG. C

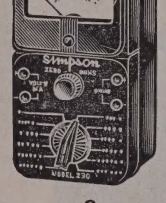
100,000 ohms/volt sensitivity. 33 ranges. Only 2 controls. Big, 7" dial. Rugged construction. Accuracy, full scale is 3% DC and 5% AC. Adjust-A-View handle. All ranges the same as Model 262 above except **DC Ohms:** 0-2000, 20,000, 200,000 ohms; 0-2, 20, 200 megs. **DC Current:** 0-16, 160 microamps; 0-1.6, 16, 160 milliamps; 0-1.6, 16 amps. Complete with test leads with removable alligator clips, 4000vdc multiplier and manual. 7 15/16" x 6" x 2 15/16". Shipping weight, 6 lbs. Net Each..... **$88.00**
40,000 Volt High Voltage Probe—Net Each..... **$12.50**

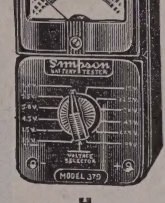
MODEL 303 VACUUM TUBE VOLT-OHMETER—FIG. D

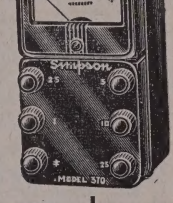
Measures AC and DC volts (1.2, 12, 60, 300 and 1200 volts), AF volts (1.2, 12, 60 volts), RF volts to 20 volts max., ohms (1000, 100K, 1 and 10 megs), DB's (—20 to +63 in 5 stages). Galvanometer zero center for FM alignment. Size 5¼"x7"x3⅛". Wt., 6¼ lbs. Includes DCV and Ohms probe, ground lead. Net Each..... **$68.00**
AC Probe—Net **$3.00. DC Probe**—Net **$3.50. Grd. Lead**—**$1.00**
Accessory Probe, **$7.50.** Hi-voltage Probe..... **9.95**
Model 303RT—With roll top case. Net Each..... **76.00**


E

F


G


H


I

MODEL 276 OSCILLOSCOPE CALIBRATOR—FIG. E

Adapts oscilloscope for quick and accurate voltage measurements by comparative methods. 12-position switch provides 6 ranges each of RMS, Peak and Peak-to-Peak voltage with 6 alternate neutral positions by viewing signal under observation. Continuously variable calibrating voltage of line frequency supplied and indicated on large 4½" meter which indicates RMS values from 0.06 volt to 90 volts peak, peak values from 0.1 to 125 volts and peak-to-peak from 0.2 to 250 volts. Shipping weight, 5 lbs. Net Each..... **$29.50**

VOLT-OHM AMMETERS

Model 240 (Fig. F)—Volt-Ohm-Milliammeter Micro-Tester. Rugged, accurate and small. Wide-angle scale; operates on dry cells. 1000 ohms/volt, AC-DC. To 3000 volts AC-DC in 4 ranges. DCMA to 750 in 4 steps. **Ohms:** 0-3K (30 ohms ctr.), 0-300K (300 ohms ctr.). Accuracy, DC 3%; AC 5%. 3" x 5⅞" x 2½". Shipping weight, 3 lbs. Net Each..... **$26.35**
Leatherette Case for Model 240—Net Each..... **$5.50**
Model 230 (Fig. G)—Volt-Ohm-Milliammeter Micro-Tester. Smaller version of Model 240. Shockproof, heavy bakelite case. 3" meter. 1000 ohms/volt. AC-DC volts to 1000 on 4 steps; DCMA to 250 in 3 steps. **Ohms:** 0-1000, 100K. Accuracy, DC, 3%; AC 5%. 3" x 5⅞" x 2½". Shipping weight, 3 lbs. Net Each..... **$24.95**
Leatherette Case for Model 230—Net Each..... **$5.50**

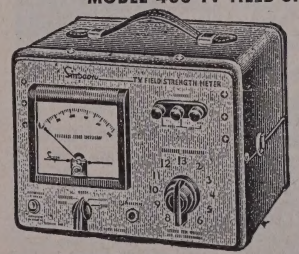
MODEL 379 BATTERY TESTER—FIG. H

Condition in terms of percentage of voltage of battery under test. Meets engineering specifications of leading battery manufacturers. 1% tolerance loading resistors. 3" meter dial marked "Good", "Weak", "Bad". With needle-point prods, operating manual. 3" x 5⅞" x 2½". Shipping weight, 2½ lbs. Net Each..... **$23.70**
Leatherette Case for Model 379—Net Each..... **$5.50**

MODEL 370 AC AMMETER—FIG. I

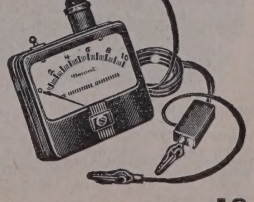
Self-contained current transformer (use on 60 cps only) and indicating instrument. Measures current draw of all types of electrical apparatus. **Ranges:** 0-1, 2.5, 5, 10, 25 amperes. Without leads. Net Each..... **$19.95**
Test Leads—With prods. Net Each..... **$1.25**
Test Leads—With alligator clips and insulated sleeves. Net..... **$1.25**

MODEL 488 TV FIELD STRENGTH METER



50 microvolt full-scale range for fringe area installations. Also 500, 5000, 50,000 microvolt ranges. 4½" meter can be read from a distance. Housed in gray hammerloid case, heavy leather handle for portability. Includes shoulder strap and operating instructions. 8" x 11" x 8½". Shipping weight, 15 lbs. Net Each... **$115.00**

MODEL 351 TV ANTENNA COMPASS



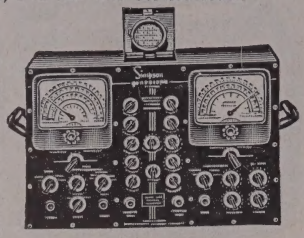
Ruggedly built, pocket sized. Connects by a simple insulation-piercing alligator clip to the video input of the CRT. By an extension cord it is carried to antenna site. With test pattern tuned in on weakest station, rotate antenna to maximum deflection on compass. 4¾" x 4¼" x 1⅝". Shpg. Wt., 4 lbs. Net Each..... **$16.35**

Simpson Test Equipment

INSTRUMENTS THAT STAY ACCURATE

MODEL 480 TV-FM GENESCOPE

Ideal for AM, FM, VHF and UHF Service needs.



AM OSCILLATOR

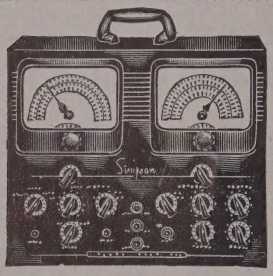
Band A—3.2 to 15.6mc. **Band B**—15 to 76mc. **Band C**—75 to 250mc. 30% Modulation at 400 cps or unmodulated. Continuously variable and step attenuators. Visual method of beat frequency indication. Crystal calibrator, 5mc, ±.05%. Audio oscillator, 400 cps. AM and FM oscillator sections provided with large, easy-to-read dials with 20 to 1 vernier control and 1000 division logging scale. Impedance matching RF output cable.

FM OSCILLATOR

Band A—2 to 120mc. **Band B**—142 to 260mc. Sweep width variable from zero to 15mc. Sweep rate, 60 cps. Specially designed frequency sweep motor. Continuously variable and step attenuators.

OSCILLOSCOPE

Vertical Sensitivity, 35mv per inch. Horizontal Sensitivity, 70mv per inch. Linear sweep frequency, 3 cycles to 60kc; 60 cycle sine sweep. Frequency essentially flat to 200kc, usable to over 3mc. **Size:** 22" x 14" x 7½". Shipping weight, 48 lbs. 105-125 volts, 60 cps, 90 watts. Complete with test leads and operator's manual. Net Each..... **$475.00**



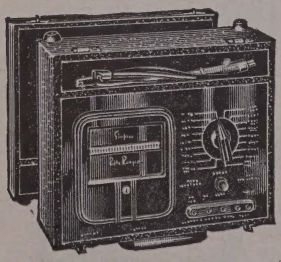
MODEL 479 TV-FM GENERATOR

The modern instrument for your TV-FM problems. Model 479 has exactly the same circuits, ranges and functions as the Model 480, described above, with the exception of the oscilloscope. **Size:** 17" x 14" x 7½". Shpg. Wt., 35 lbs. 105-125 volts, 60 cps, 50 watts. Complete with test leads and operator's manual. Net Each..... **$325.00**

MODEL 476 MIRROSCOPE

Uses a 5" CRT mounted in a vertical position, reducing bench requirements to 9" x 8". Mirror angle readily adjustable for reading ease to any position. Cover with side wings forms shield against external light sources. **Sensitivity:** Vertical direct, −12 volts rms/inch; Vertical amplifier 20 millivolts rms/inch; Horizontal direct, −14 volts rms/inch; Horizontal amplifier −38 millovolts rms/inch. **Input Impedance:** Vertical direct, 10 megs, 15μμf; Horizontal direct 10 megs, 15μμf; Vertical amplifier, 300,000 ohms, 30μμf; Horizontal amplifier, ½ meg, 15μμf. Horizontal trace over 4 times tube diameter. Sweep frequency continuously adjustable in 5 overlapping ranges from 15 to 60,000 cps. Internal, external or line sync with variable amplitude is available. Vertical amplifier frequency response within 3 db from 20 to 300kc. Square wave slant and overshoot less than 5% amplitude. **Tubes:** 5UP4, 5-6J6, 1-12AU7, 2-6X4. **Size:** 16¼" x 9½" x 8". Shipping weight, 30 lbs. Net Each..... **$197.00**

High Freq. Crystal Probe. Net Ea.. **$7.50**

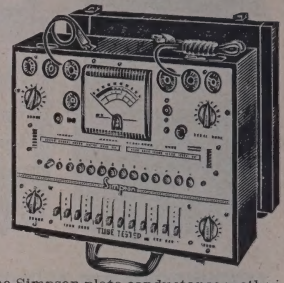


MODEL 221 "ROTO-RANGER"

Simpson Model 221 "Roto-Ranger" volt-ohm-milliameter. Features new Simpson rotating multiple range scale. Scale interlocked with selector switch so that when range is selected proper scale rotates into place automatically. Precise and positive action. 18 separate large scales. 20,000 ohms per volt DC, 1000 ohms per volt AC. Volts AC and DC: 2.5, 10, 50, 250, 100 and 5000. Milliamperes DC: 10, 100, 500. Microamperes DC: 100. Amperes DC: 10. Decibels (five ranges) −10 to +52 db. Ohms 0-2,000 (12 ohms center); 0-200,000 (1200 ohms center); 0-20 megohms (120,000 ohms center). Complete with test leads and thirty-six page operating manual. Anodized aluminum panel. Shipping weight 11½ lbs. Net Each..... **$75.00**

NEW MODEL 1000 PLATE CONDUCTANCE TUBE TESTER

FAST TESTING IN OHMS READINGS FOR LEAKAGE OR SHORTS



The new Simpson Model 1000 will test any receiving tube including 9-pin miniatures and subminiatures with base arrangements in a line or circle. The Model 1000 tests an extremely important factor in the tube which is plate conductance. The dial indicates percentage of rated plate conductance which is closely related to mutual conductance since amplification factor remains constant throughout the life of the tube. Testing by the Simpson plate conductance method makes testing methods simpler ... more positive and more accurate. These tests are made under conditions simulating actual use in radio, TV, hearing aids and other electronic circuits. Model 1000 gives exact ohms values for inter-element leakage and tube shorts. Handy multi-position toggle switches make quick adjustments to proper voltages for bias, screen and plate supply. Each tube element is individually connected to the proper potential. This insures against tube damage during testing. Simpson Snap-Out-Snap-In transparent plastic windows are provided over the fast action roll chart. In this manner, you may add information on new tubes at any time. Easy-to-read type on roll chart.

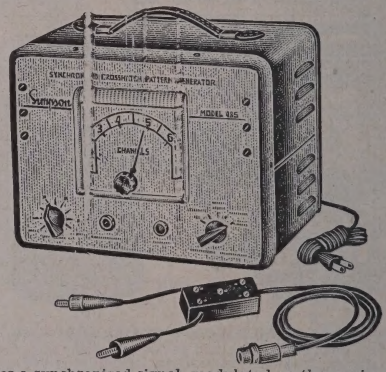
New roll chart available each year, complimentary roll chart supplements provided at regular intervals.

Panel is finished in non-glare grey hammerloid. Rich burgandy carrying case. Locke like luggage. This is the tube tester you will be proud to own.

For 105-125 volts 50-60 cycles. Size: 15¾" x 11¾" x 6". Shipping weight, 23½ lbs.

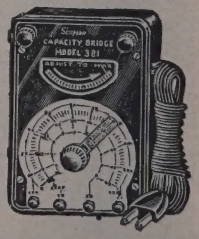
Model 1000—Including Operator's manual. Net Each **$135.00**

MODEL 485 SYNCHRONIZED CROSSHATCH GENERATOR



Provides a synchronized signal, modulated on the carrier frequencies of channels 2 through 6, which can be tuned and sent through the receiver under test. When the receiver has been properly adjusted, the signal will show equally spaced lines in vertical, horizontal or crosshatch patterns on the CRT. All patterns locked in place with synchronizing pulses exactly the same as the sync pulses in transmitted wave-forms. 11⅜" wide, 8⅜" high, 9¼" deep. Shipping weight, 15 lbs. Net.. **$147.50**

MODEL 381 CAPACITY BRIDGE



Wide Range: 20 MMF to 500 MMF.
Compact Size: 3⅝" x 5½" x 2⅝".

The Model 381 embodies a new patented circuit which enables even the inexperienced to make capacity measurement with ease and assurance. Three ranges are available:

Range 1—20 mmfd. to 5000 mmfd.
Range 2—.005 mfd. to 2 mfd.
Range 3—1 mfd. to 500 mfd.

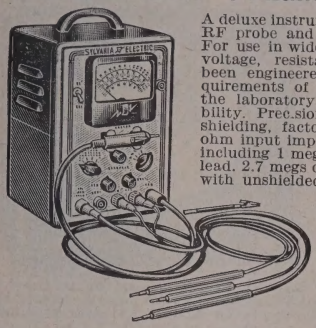
There are no multiplying factors or confusing calculations to make. Merely set the switch to the desired range, adjust the bridge arm for maximum meter deflection, press a button, and read the capacity on the indicated scale directly. The small size of this tester with its wide range of measurement, makes it ideal for shop or lab use. Housed in a beautiful bakelite case with a durable etched aluminum panel. Operates on 105-125 volts, 50-60 cycles. Shipping weight, 3 lbs.

Model 381—Net Each..... **$28.50**

Sylvania Test Instruments

MODEL 221Z VACUUM TUBE VOLTMETER

- **INCLUDES VACUUM TUBE RF PROBE AND CURRENT SCALES**
- **UNUSUAL STABILITY**
- **PRECISION COMPONENTS**



A deluxe instrument with a vacuum tube RF probe and current scales included. For use in wide range measurements of voltage, resistance and current. Has been engineered to meet exacting requirements of the TV technician and the laboratory engineer. Unusual stability. Precision components, adequate shielding, factory calibration. 17 megohm input impedance on all DC ranges including 1 meg isolating resistor in DC lead. 2.7 megs on normal AC with 40$\mu\mu f$ with unshielded lead, or 125 $\mu\mu f$ using shielded lead supplied. 2.3 megs on RF with only 3$\mu\mu f$ shunt capacity. **Ranges:** 3 volts to 1000 volts DC, 6 ranges. 3ma to 10 amps, DC, full scale in 7 ranges. 3 volts to 1000 volts AC, 6 ranges. 3 volts to 300 volts RF to 300mc, 5 ranges. **Resistance Ranges:** 0-1000, 10K, 100K, 1 meg., 10 meg., 1000 meg. Use of two double triodes instead of one makes it possible to use more rugged, 1ma, 4½" meter movement. Lighted dial; microphone connectors; 5-tube circuit. **Size:** 11½" high x 8¾" wide x 7" deep. **Power:** 105-125 volts AC, 50-60 cps, 30 watts, fused. **Finish:** Pearl grey mar-resistant crackle. Grey panel. Weight, 12½ lbs.

Sylvania Model 221Z VTVM—Net Each..... **$99.50**

MODEL 500 SWEEP SIGNAL GENERATOR

- **ELECTRONICALLY CONTROLLED SWEEP CIRCUITS**
- **OUTPUT FREQUENCIES FUNDAMENTALS FROM 2 TO 230 MC**
- **4-BAND COVERAGE**
- **PUSH-PULL VFO**

Designed for TV and FM radio alignment work. Electronically controlled sweep circuits. Output frequencies from 2 to 230mc required for FM are ALL fundamentals. Coverage is in 4 bands, utilizing a push-pull variable frequency oscillator. Ranges, 0-600kc, 0-15mc. Excellent sweep linearity assures elimination of non-linear distortion. Smooth attenuator gives continuous control of output from 300 microvolts to .1 volt. Double-shielded to prevent unwanted signal leakage. Voltage for either driving or synchronizing the horizontal deflection of a scope is provided. Smooth, wide-range phasing control permits adjustment for single response curve. Phasing control varies phase of 60 cps sweep to scope. **Finish:** Pearl-grey crackle, grey panel. **Size:** 11½" high x 8¾" wide x 7" deep. **Power:** 105-120 volts AC, 50-60 cps, 30 watts. **Tubes:** 1-6J6, 1-12AT7, 1-6BC5, 1-6BH6, 1-7Y4, 1-OD-3. Weight, 12½ lbs.

Sylvania Model 500 Generator—Net Each..... **$139.50**

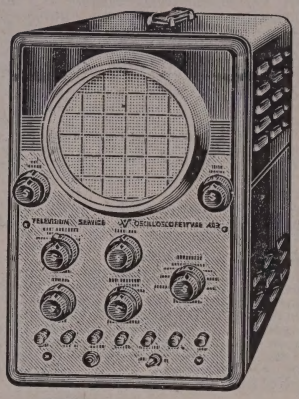
MODEL 501 TV MARKER GENERATOR

- **TWO MARKER PIPS MAY BE OBTAINED BY SIMULTANEOUS USE OF BOTH OSCILLATORS**

Specifically designed as a companion instrument for Type 500 above, this unit may also be used with any sweep generator, or by itself as a highly accurate source of separate or simultaneous variable and crystal controlled signals (using external crystal). A variable frequency oscillator covers the range of 15-240mc, with a dial accuracy within 1%. Separate circuit provides signals of crystal accuracy, without tuning, by inserting standard crystals in a panel socket. A feed-thru input for a sweep signal is provided; slide-rule dial is illuminated; a signal switch selects separate or combined outputs or "stand-by" and the output of each oscillator is controlled by its own attenuator. Separate high and low output jacks provide signals as high as .01 volts and as low as 20 microvolts. Indicator lights for stand-by and operating positions. **Two marker pips** may be obtained by simultaneous use of both oscillators. Cable termination permits instant connection to socket lead wires, plus non-reactive ground contact to nearby chassis point. 4.5 mc crystal (Syl 229) is available for providing accuracy required for intercarrier sound circuits. **Size:** 11½" high x 8¾" wide x 6¹⁵⁄₁₆" deep. 117 volts, 50-60 cps, 28 watts. Weight, 16 lbs.

Sylvania Model 501 Marker Generator—Net Each.. **$129.50**

MODEL 403 TELEVISION SERVICE OSCILLOSCOPE



An extremely sensitive, dc coupled, all-purpose oscilloscope created especially for designing and servicing television receivers. Accurately displays response curves and complex waveforms on the large 7" screen. The use of identical horizontal and vertical push-pull, dc coupled amplifiers results in excellent phase-time response characteristics and enables the true value of dc to be measured. **Vertical Sensitivity:** 0.01 volt RMS per inch. **Horizontal Sensitivity:** 0.02 volt RMS per inch. **Input Impedance:** Vertical, 1 megohm, 26$\mu\mu f$; Horizontal, 1 megohm, 53 $\mu\mu f$. **Accelerating Voltage:** 1280 volts. **Sweep Rates:** 5 cycles to 50 kc; three pre-set, 30 cycles, 60 cycles and 7875 cycles. Four-position frequency compensated step attenuator and low-Z distortion-free smooth attenuator. Internal hard-tube multivibrator circuit. Rapid return trace; control to sync either pos. or neg. signals; built-in voltage source for calibration. Special circuitry guarantees flat topped square wave response at 60 cps. 14 tubes. Designed for 105-125 volt operation, 50/60 cycles, 100 watts. Fused. 17⅛" high x 11¾" wide x 19½" deep. Shipping Weight, 45 lbs.

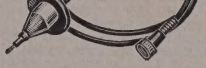
Sylvania Model 403 Oscilloscope—Net Each..... **$269.50**

MODEL 300 OSCILLOSCOPE CALIBRATING STANDARD

This unit, by placing a calibrated voltage on the screen of a scope, allows peak-to-peak voltages to be accurately measured. Uses a voltage regulator and clipper circuit. A switch allows unknown signal from circuit under test to be applied directly through calibrator. By turning to "Calibrate" position, the calibrator signal is fed into scope and is varied in amplitude by adjusting the multiplier and vernier dials to obtain same amount of deflection caused by unknown signal. Voltage of calibrator is read directly from multiplier and vernier dials. No lead changing is necessary. Clipped 60 cps wave has flat top and is valuable for checking low frequency response of a scope. **Size:** 11¼" 11¼" high x 5" wide x 4⁷⁄₁₆" deep. Weight, 6 lbs.

Sylvania Model 300—Net Each... **$44.50**

TV HIGH VOLTAGE PROBES



Measure high TV anode voltages. Special conversion cartridge permits using 30kc probes with any 1000 volt scale, 20,000 ohm/volt meter.

Model	Range	For Model	Net
225	30kv	221, 221Z	$12.50
226	30kv	Conversion	2.00

MODELS 219 AND 220 TUBE TESTERS

Minimum of controls create proper circuit for testing tubes. Settings correspond to pin numbers, can be made for new tubes directly from base diagrams. TEST switch removes hi-voltage from circuit when released: Tests all tubes. **All tests, including shorts and cathode heater leakage indicated directly on meter.** Tubes are tested by composite trans-conductance and emission test. A real circuit is built around tube under test with a choice of 3 input signals and appropriate screen and plate voltages working through proper loads. Accurate gas test by "grid shift" method. Fast operating, free running roller chart easily removed from panel. New settings regularly published in Sylvania News can be recorded with ease. Extra-quality components. Lightweight cabinet, illuminated meter. 105-120 volts AC, 50-60 cps, 20 watts, panel fuse. **Size:** 6" x 11¼" x 17". Weight, 19 lbs.

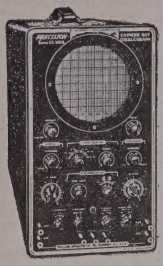
Sylvania Model 220—Portable tester as shown. Net. **$114.50**
Sylvania Model 219—Same, except bench model. Net. **$114.50**

232-54C

"Precision" Test Equipment

PRECISION TEST EQUIPMENT
Standard of Accuracy

MODEL ES-500A CATHODE RAY OSCILLOGRAPH



Push-Pull Vertical and Horizontal Amplifiers. Vertical amplifier response to 1 mc. 2 megohm input resistance. Approx. 22 μμf input capacity. Vertical sensitivity .02 volts. Calibrated, compensated input step attenuator to cathode follower circuit insures excellent square wave response at all setting of attenuator. Vertical pattern reverse switch. Horizontal amplifier response to 1 mc. ½ meg. input resistance. Approx. 20 μμf input capacity. Linear sweep from 10 cycles. Built-in 60 cycle blanking and sweep phasing control. "Z" axis beam modulation input. Built-in peak-to-peak voltage calibrator. Shipping Wt., 44 lbs.

Precision Model ES-500A—Black ripple finish steel cabinet, 8¼" x 14½" x 18". Net Each..... **$173.70**

VACUUM TUBE VOLTMETERS

The new Precision EV-20 VTVM and Multi-Range Test Set is a versatile, portable instrument. True "0" center on all VTVM ranges, with direct reading high freq. scales. 48 ranges: to 1200 volts (to 60,000 volts when used with Super-High Voltage Test Probe TV-4*), 2000 megohms, 12 amperes, +63 db. 4⅝" meter 200 microamperes, ± 2%. Complete with coaxial circuit isolating test probe, cable and test leads; ohmmeter battery, 10½" x 6¼" x 5". Weight, 11 lbs. *Not included.

Precision Model EV-20—Net Each..... **$69.75**

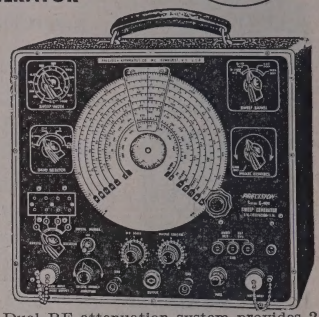
Model EV-10 VTVM—Megohm-meter with extra-large easy-reading 7" meter. 8 "0" center VTVM ranges to ±6000 volts plus 8 AC-DC output voltage ranges; 8 DC current ranges, 8 db ranges. 4 high frequency ranges using RF-10A probe.* 6 ohms ranges to 2000 megs. Size: 10½" x 12" x 6". *Not included.

Precision Model EV-10A-MCP—Black ripple finish steel case. Shipping weight, 17 lbs. Net Each..... **$104.50**

Precision Model EV-10A-P—In hardwood portable case with tool compartment. 12" x 13" x 6". Net Each. **$107.25**

Precision Model EV-10A-PM—Same mounted on 12¼" x 19" panel for standard rack mount. Net Each. **$110.00**

MODEL E-400 SWEEP SIGNAL GENERATOR



Precision Model E-400 Wide RangeSweep Signal Generator with narrow and wide band for FM and TV alignment. Continuous frequency coverage from 2 mc to 480 mc in 7 bands without break. Variable frequency deviation control: 0-1 mc and 0-15 mc continuous. Phasing control and horizontal sweep output supply provided directly at front of panel. Built-in crystal marker-oscillator with simultaneous insertion of any 4 crystals for marker pips and provision for external variable frequency marker. Dual RF attenuation system provides 2 continuous, stepless, variable attenuators for smooth control of output. Provisions also provide for external AM and deviation input.

Precision Model E-400—Steel, black ripple finish cabinet 10" x 12" x 6". 24 lbs. Net Each..... **$145.00**

Precision Model E-400-PM—Rack panel mount. 12¼" x 19". 25 lbs. Net Each..... **150.50**

MODEL E-200-C SIGNAL-MARKER GENERATOR

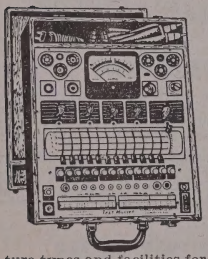
Precision Model E-200-C Signal Generator is a modern multi-band generator for AM, FM and TV. Covers 88kc to 120mc in 8 bands on direct reading dial. Accurate to 1% and high stability on all bands. 400 cycle sine wave audio oscillator; dual RF attenuators; shielded coaxial output cable; direct reading variable modulation from 0 to 100%. AVC-AGC substitution system. Tubes: 1-6SJ7; 1-6C5; 1-5Y3.

Precision Model E-200-C—Black ripple finish steel case, 10½" x 12" x 6". Shipping weight 17 lbs. Net Each..... **$82.50**

Precision Model E-200-C-PM—Rack panel mounting, 12¼" x 19". Shipping weight 20 lbs. Net Each..... **$88.00**

"ELECTRONAMIC" 10-00 SERIES TUBE AND TEST MASTERS

MODEL 10-54 ELECTRONAMIC TEST MASTER



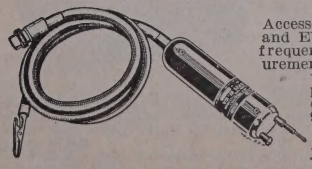
Precision Series 10-54 is a high quality combination tube, Circuit and Battery Tester. 35 range, push-button operated AC-DC multi-purpose test meter with 6 DC voltage ranges at 20,000 ohms/volt; 6 AC voltage and 6 output voltage ranges at 1000 ohms/volt sensitivity from 0 to 6000 volts. 7 DC current ranges from 0-60 microamperes to 0-12 amperes. 4 resistance ranges to 60 megohms. 6 decibel ranges from −20 to +70 db. All resistors used are 1% tolerance wire-wound or metallized. The tube tester electronamically performance-tests all tube types including 7 and 9 pin miniature, acorn, dual capped high frequency tubes, low power transmitting tubes, sub-miniature types and facilities for future tubes up to 12 prongs. Absolute free-point lever element selection and inter-element short test. Dual sensitivity short check. Ballast, noise and condenser checks. Line adjustment control; roll chart; test circuits isolated from power line. Battery tester tests dry batteries under load conditions and reads directly on 3-color scale.

Precision Model 10-54P—13¾" x 17¼" x 6¾". Portable. Shipping weight 25 lbs. Net Each..... **$144.00**

Precision Model 10-54PM—Panel for standard rack. Shipping weight 35 lbs. Net Each..... **148.75**

Precision Model 10-54C—Counter model. 17" x 17⅞" x 7½". Shipping weight 34 lbs. Net Each..... **148.75**

MODEL RF-10A VACUUM TUBE R. F. PROBE



Accessory for Series EV-10A and EV-20; affords direct high frequency peak voltage measurements. Connects directly to vacuum tube voltmeter panel. Does not use any crystal rectifiers. Uses 9002 tube.

Model RF-10A Net Each..... **$14.40**

MODEL 10-12 ELECTRONAMIC TUBE MASTER

Precision Model 10-12 Electronamic Tube Master incorporates the same tube and battery tester described at left less multiple range set-testing functions.

Precision Model 10-12P—Portable case. 13¾" x 17¼" x 6¾". Shipping weight 23 lbs. Net Each..... **$112.50**

Precision Model 10-12PM—On standard rack panel, 17½" x 19". Shipping weight 33 lbs. Net Each..... **117.25**

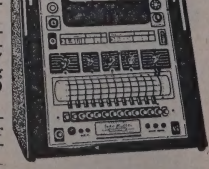
Precision Model 10-12C—Counter case. 17" x 17⅞" x 7½". Shipping weight 32 lbs. Net Each..... **117.25**

MODEL CR-30 CATHODE RAY TUBE TESTER

A complete, self-contained instrument. Incorporates a beam current test circuit which checks over-all electron-gun performance for proportionate picture brightness. Positive checking of accelerating anodes and deflection plate elements. Tests magnetic and electrostatic 'scope tubes without removal from carton or chassis. Tests all elements. Free-point 14 lever element selection system for short-check, leakage and quality tests. Checks beam current rather than total emission. Voltage regulated, bridge-type VTVM provides the heart of the circuit. Micro-line voltage adjustment, meter-monitored. Built-in high-speed roller tube chart. 4⅝" full vision meter with special scale plate. Hardwood case, 17¼" x 13¾" x 6¾". Weight, 22 lbs.

Precision Model CR-30—Net Each..... **$109.00**

MODEL 10-15 DELUXE TUBE MASTER



Precision Model 10-15 is deluxe tube and battery merchandiser with large 9" meter, incorporating the same high quality circuit as model 10-54 described at left. Designed for radio service sales organizations. Direct reading meter in terms of replace, weak, good; illuminated by large chromium reflector.

Precision Model 10-15—Black ripple finish steel cabinet chrome trimmed. Size 24" high, 17½" wide, 10" deep at base, 4" deep at top. Shipping weight 45 lbs. Net Each..... **$159.00**

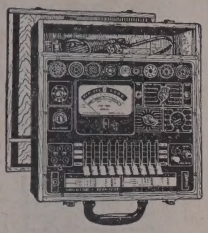
Space prevents giving full specifications on Model 10-15 and many other of the listings. For complete specifications write for latest catalog.

105-55A

"Precision" Test Equipment

PRECISION TEST EQUIPMENT
Standard of Accuracy

CATHODE CONDUCTANCE 600 SERIES TUBE TESTERS



MODEL 612 CATHODE CONDUCTANCE TUBE TESTER

Precision Model 612 cathode conductance free point, lever operated tube and battery tester tests all modern tubes, including miniature 7- and 9-pin, acorn, dual-capped tubes and ballasts. 4½" meter, 2% accuracy. Dual short-check sensitivity. Noise and condenser tests. Dynamic "under load" test for dry batteries. Roll chart.

Precision Model 612P—In hardwood portable case, 12" x 13" x 6". Shipping weight 19 lbs. Net Each..... **$84.50**

Precision Model 612-MCP—Open style metal case, portable. Black ripple finish. 10½" x 12" x 6". Shipping weight 17 lbs. Net Each..... **81.75**

Precision Model 612C—Counter model. 16" x 13½" x 7", sloping to 3" at front. Shipping weight 23 lbs. Net Ea. **87.25**

MODEL 654 TUBE, BATTERY AND SET TESTER

Precision Model 654 Tube and Set Tester combines the Cathode Conductance tube tester described above with a 20,000 ohms per volt circuit tester. 5 DC ranges at 20,000 ohms per volt, 5 AC and output voltage ranges at 1000 ohms per volt, 0-12-60-300-1200-6000 volts. 6 DC current ranges: 0-120 microamperes, 0-1.2-12—120 ma. and 0-1.2-12 amps 3 self-contained resistance ranges: 0-6000-600,000 megs. Decibel range from −12 to +70 db.

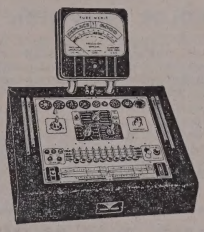
Precision Model 654P—In hardwood portable case. **$115.00**
12" x 13" x 6". Shipping weight 20 lbs. Net Each....

Precision Model 654-MCP—Open style metal case, **112.25**
portable. 10½" x 12" x 6". Shpg. wt. 19 lbs. Net Each..

Precision Model 654C—Counter model. 16" x 13½" **117.75**
x 7". Shipping weight 23 lbs. Net Each.....

Panel Mounts. Models 612 and 654 listed above are also available in Rack Panel Mounting.

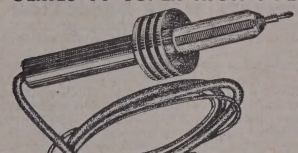
MODEL 614 DELUXE TUBE AND BATTERY MERCHANDISER



Precision Model 614 Deluxe Tube and Battery Merchandiser is modern counter type with large 7" chrome trimmed meter which provides full view to both operator and customer. The tester employs the same circuit as does the Model 612 Tester.

Precision Model 614—Counter model. Black ripple finish, chrome trim. 7" offset mounted meter. Size 16" x 13½" x 7", slopes to 3" at front. Shipping weight 27 lbs. Net Each..... **$114.00**

SERIES TV SUPER HIGH VOLTAGE TEST PROBES



Voltage ranges to 60,000 volts DC with standard VTVM or high sensitivity VOM. Series TV has been custom designed and patent protected for safety first. Cartridge style high voltage tubular multiplier permits use of a single "TV" probe with most popular high sensitivity sets and VTVM's. Custom molded polystyrene head, heavy-duty bakelite handle and barrier, specially machined internal lucite components. High dielectric anti-leakage paths and wide, multi-channeled guard-barrier. Internal and external protective grounding. Full handle length grounded internal flash-over shield. Heavy duty shielded connecting cable. Ceramic, helical film-type cartridge multiplier, removed and changed without tools. Positive grounds and HV connections via high compression contact springs.

Precision Model TVP—Test probe less multiplier cartridge, with .080" pin plug terminations. Net Each..... **$12.35**

Precision Model TVP-A—Similar to TVP above, except terminates in standard screw-on connector for use with most VTVM's. (Less multiplier cartridge.) Net Each..... **$12.35**

Precision Model TV-2—(Illustrated). With 30 KV cartridge for any 20,000 ohm-per-volt test set with 6000 volt range except Model 120. Net Each..... **$14.75**

Precision Model TV-2B—Same as Model TV-2 above except is for use with Model 120. Net Each..... **$14.75**

Precision Model TV-4—With cartridge for ranges to 60 KV for use with Precision Models EV-10A and EV-20. Net Each..... **$14.75**

Precision Model TV-4A—Same as series TV-4 above, except furnished with special adapter for Precision Model EV-10. Net Each..... **$14.75**

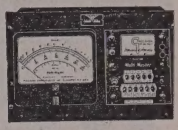
Precision Model TVM—Cartridge multipliers only for Series TV.

Megs	Net	Megs	Net	Megs	Net	Megs	Net
225	$4.10	594	$5.50	991	$4.10	1320	$2.75
270	5.50	892	4.10	1080	3.30	1495	5.50
400	3.30	900	4.10	1090	3.30	1585	5.50
450	4.10	950	5.50	1189	5.50	1684	4.10
480	2.75	970	5.50	1225	4.10	2490	4.10
570	5.50	980	4.10				

DUAL SENSITIVITY METERS

MODEL 866 DELUXE MULTIMASTER

Precision Model 866 Panel Mounted lab. type AC-DC Test Set with 9" meter, remote control selector unit and dual sensitivity ranges of 5000 and 1000 ohms per volt DC; 1000 ohms per volt AC. 8 DC voltage ranges at 5000 and 1000 ohms per volt—8 ranges at 1000 ohms per volt AC and output: 0-3-6-12-60-300-600-1200-6000 volts. 8 DC current ranges: 0-0.3-1.2-3-30-300-600 ma; 0-1.2-12 amperes. 6 resistance ranges: self-contained to 20 megohms; 0-2000-20,000-200,000 ohms. 0-20-200 meg. 8 decibel ranges from —26 to + 70 db.



Precision Model 866—On standard rack panel, 12¼" x 19". Shpg. wt. 20 lbs. Net Each.. **$85.00**

MODEL 847 DUAL SENSITIVITY METER

Precision Model 847 circuit and ranges are identical with those of Model 866 described above, except that the meter is 4⅝" rectangular. All resistors are 1% tolerance wire-wound or metallized.

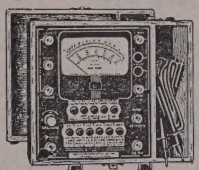
Precision Model 847-L—In modern bakelite case, complete with high voltage test leads and batteries. 7½" x 8" x 3". Shipping weight 7 lbs. Net Each..... **$51.25**

Precision Model 847P—Complete with high voltage test leads and batteries. Hardwood portable case, 9" x 10½" x 4½". Shipping weight 8 lbs. Net Each..... **$54.50**

Precision Model 847-J—Same as above except includes AC ampere ranges for industrial testing. Shipping weight 15 lbs. Net Each..... **$84.25**

MODEL 858 HIGH SENSITIVITY MULTI-MASTER

Precision Model 858 High Sensitivity Multi-range Tester of 20,000 and 1000 ohms per volt DC and 1000 ohms per volt AC with 54 separate ranges and push-button selector system. 8 voltage ranges to 6000 volts in both DC and in AC and output voltage sections. 8 DC current ranges: 0-60-120 microamperes, 0-1.2-12-120-600 milliamperes, 0-1.2-12 amperes. 6 resistance ranges: self-contained to 60 megohms: 0-6000-60,000-600,000 ohms, 0-6-60-600 megohms. 8 decibel ranges from —26 to+70 db. Meter sensitivity 50 microamperes, ±2% accurate. All resistors ±1% tolerance. 6000 volt safety jacks are sub-panel mounted.



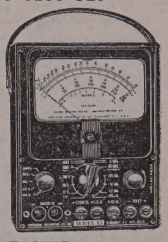
Precision Model 858P—In hardwood portable case with tool compartment. 9" x 10" x 4½". Shipping weight 8 lbs. Net Each..... **$61.50**

Precision Model 858L—In bakelite case. Size 7½" x 8½" x 3". Shipping weight 8 lbs. Net Each..... **58.75**

Precision Model 858J—Same as above except contains AC ampere ranges. Shipping weight 15 lbs. Net Each... **91.25**

MODEL 85 HIGH SENSITIVITY TEST SET

Precision Model 85 is a 20,000 ohms/volt DC, 1000 ohms/volt AC meter with 34 self-contained ranges to 6000 volts, 120 microamperes, 12 amperes, +70 db, and 60 megohms. Voltage ranges: 0-3-12-60-300-1200-6000. DC current ranges: 0-120 microamps, 0-1.2-12-120ma., 0-1.2-12 amps. Resistance ranges: 0-6000-600,000 ohms, 0-6-60 megohms. 6 decibel ranges from −26 to +70 db. 4⅝" meter, 50 microampere 2% accuracy. All resistors 1% tolerance.

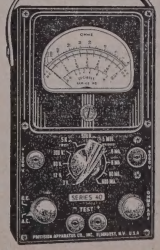


Precision Model 85—In bakelite case, 5½" x 7⅛" x 3", Complete with batteries and leads. Shipping weight 5 lbs. Net Each..... **$39.95**

MODEL 80 WIDE RANGE TESTER

Precision Model 80 is a 1000 ohms/volt 34 range meter of the same physical appearance as the above listed meter. 6 AC, DC, output volt ranges from 0 to 6000 volts, 6 DC current ranges to 12 amps. Resistance ranges: to 10 megohms. 400 microamp meter, 2% accuracy. All resistors 1% wire-wound or metallized.

Precision Model 80—In black bakelite case, 5½" x 7⅛" x 3". Shipping weight 5 lbs. Net Each..... **$34.95**



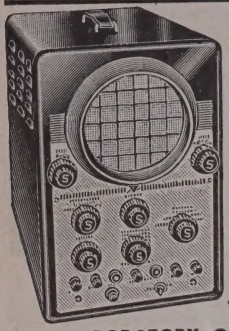
MODEL 40 CIRCUIT TESTER

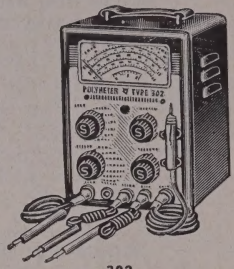
Precision Model 40 is a compact wide range circuit tester with 31 ranges. Self-contained to 6000 volts, 600 ma., +70 db and 5 megs. Full size 3" meter. 1000 ohms per volt AC or DC. Voltage ranges, AC, DC, Output: 0-3-12-60-300-1200-6000 volts. DC Current ranges: 0-0.6-6-60-600. 6 decibel ranges from —22 to +70. 3 self-contained resistance ranges 0-5,000-500,000-5 meg.

Precision Model 40—Bakelite case, 3¾" x 6¼" x 2½". Shipping weight 3 lbs. Net Each..... **$26.95**

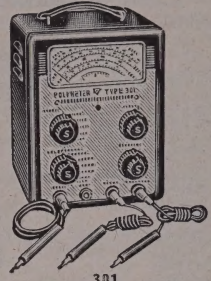
Sylvania and Precision Instruments

NEW SYLVANIA INSTRUMENTS


404



302



301

506

TV LABORATORY OSCILLOSCOPE TYPE 404

The Sylvania Type 404 is an extremely sensitive, wide band, all purpose oscilloscope created especially for designing and servicing television receivers. It utilizes a seven-inch cathode-ray tube for extra large patterns. **Sensitivities:** Vertical—10 millivolts per inch; Horizontal—150 millivolts per inch; Vertical Plates—24 volts per inch; Horizontal Plates—26 volts per inch. **Input Impedances:** Vertical Amplifiers—5 megohms, 26 $\mu\mu f$; Horizontal Amplifiers, 5 megohms, 31 $\mu\mu f$; Vertical and Horizontal Plates (direct)—4.7 megohms, 16 $\mu\mu f$. **Accelerating Potential:** 2200 volts. **Sweep Rates:** 25 cycles to 50 kilocycles. Designed for 105-125 volt, 50-60 cycle operation. High Voltage and Demodulator Probes included with instrument. Cabinet Size—17 1/16" x 11 3/8" x 19 1/2". Shpg. Wt., 65 lbs.
Sylvania Model 404—Net Each..... **$329.50**

DELUXE POLYMETER TYPE 302

A Polymeter for AM, FM and TV servicing. Flat response from 20 cps to 300 mc. Uses the new Sylvania 7" meter movement. Reads Peak to Peak, AC, DC, RF voltages and DC amperes. A Resistance, Decibel and Zero Center scale are provided for service convenience. AC and DC volt ranges: 0-3, 10, 30, 100, 300, 1,000. **Peak to Peak Volt Ranges:** 0-8, 28, 80, 280, 800, 2,800 **RF Volt Ranges:** 0-3, 10, 30, 100, 300. **DC Milliamp Ranges:** 0-3, 10, 30, 100, 300, 1,000. **DC Amp. Range:** 0-10. **Resistance Ranges:** 0-1,000, 10,000, 100,000 ohms, 1 megohm, 10 megohm, 1,000 megohm. **Input Impedances:** DC range—17 megohm, AC range—2.7 megohm shunted by 40 mmf. (with unshielded lead), or 125 mmf. (with shielded lead). **RF Range:** 2.3 megohm shunted 3 mmf. Supplied with test leads and RF probe. Designed for 105-125 volt, 50-60 cycle operation. Size—11 1/2" x 8 1/2" x 7". Shipping Weight 16 1/2 lbs.
Sylvania Model 302—Net Each..... **$129.50**

SERVICE POLYMETER TYPE 301

A new Polymeter, designed for laboratory and field measurements. Frequency range from 20 cps to 20 kc. Uses the new Sylvania 7" meter movement. Reads Peak to Peak, AC, DC voltages and DC current. Resistance, Decibel and Zero Center scales are provided for service convenience. **AC and DC Volt Ranges:** 0-3, 10, 30, 100, 300, 1000. **Peak to Peak Volt Ranges:** 0-8, 28, 80, 280, 800, 2800. **DC Milliamp Ranges:** 0-3, 10, 30, 100, 300, 1000. **DC Amp. Range:** 0-10. **Resistance Ranges:** 0-1,000, 10,000, 100,000 ohms, 1 megohm, 10 megohm, 1,000 megohm. **Input Impedances:** DC range—17 megohms, AC range—2.7 megohm shunted by 40 mmf. (with unshielded lead), or 125 mmf. (with shielded lead). Supplied with test leads. Designed for 105-125 volt, 50-60 cycle operation. Size: 11 1/2" x 8 1/2" x 7". Shipping Weight 16 1/2 lbs.
Sylvania Model 301—Net Each..... **$109.50**

COLOR TELEVISION DOT GENERATOR TYPE 506

The Type 506 Generator is a "Sylvania First" for a new line of test equipment for color television service. It provides a pattern whereby the beams of a color cathode-ray tube, of the three-gun type, may be properly converged by the serviceman. Sync is coupled directly from the receiver. Wide range of dot spacing is provided for convergence and linearity adjustments. Positive gating and triggered multivibrators assure undistorted output. Test leads permanently fasten to front panel. Special Sylvania output adapter provided. Designed for 105-125 volt, 50-60 cycle operation. Cabinet size—8 3/4" x 11 5/16" x 6 11/16".
Sylvania Model 506—Net Each..... **$129.50**

NEW PRECISION APPARATUS TEST EQUIPMENT

"120" MULTI-RANGE TEST SET

Out-ranges any similar V-O-M: From 1.2 volts full scale AC-DC to 6000 volts full scale (up to 60 kv DC with optional "TV" probe); from 60 microamperes full scale (1 microamp per scale division) to 12 amperes DC; from −20 db to +3 db low scale to +56 db to +77 db high scale; from 0-200 ohms full scale to 0-20 megohms full scale. **8 DC Voltage Ranges:** 20,000 ohms per volt; 0-1.2-3-12-60-300-600-1200-6000 volts. **8 AC Output Ranges:** Same as DC, with built-in blocking capacitor to 600 volts. **7 DC Current Ranges:** 0-60-300 microamperes, 0-1.2-12-120-600 milliamperes, 0-12 amperes. **5 Resistance Ranges:** Self-contained batteries; 0-200-2000-200,000 ohms, 0-2-20 megohms. **8 Decibel Ranges:** −20 db to +77 db; 0 db equals 1 milliwatt, 600 ohms. **Extra-Large 5 1/4" PACE Meter:** 40 microamperes sensitivity, 2% accuracy. Manganin compensated. 1% wire-wound and deposited film multipliers and shunts. Two low resistance jacks serve all standard ranges. Separately identified and isolated jacks provide for extra-high ranges. **"Transit" Safety Position:** On Rotary Range Selector, provides effective dampening of meter movement for utmost protection during transportation. Custom-molded phenolic case and panel. **Precision Apparatus Model 120**—Complete with internal ohmmeter batteries, banana-plug test leads and operating manual. Overall case dimensions approx. 5 3/8" x 7" x 3". Shipping Weight, 5 lbs. Net Each..... **$39.95**

SERIES 520 GENERAL PURPOSE 5" OSCILLOGRAPH

Especially engineered to fill the requirement for an economically priced, reliable 'scope for general applications. Permits the benefits of practical visual circuit analysis. **Condensed Specifications:** (**1**) Push-pull vertical and horizontal drive; (**2**) 20 millivolts per inch "V" sensitivity; (**3**) 4-step "V" input, frequency-compensated attenuator; (**4**) built-in 1 volt peak-to-peak, regulated voltage calibrator; (**5**) "V" frequency response 3 db or better at 500 kc; (**6**) 150 millivolts per inch "H" sensitivity; (**7**) "H" frequency response 3 db or better at 200 kc; (**8**) multi-vibrator internal linear sweep 10 cps to 30 kc; (**9**) negative and positive sweep sync selection; (**10**) internal 60 cycle sine-sweep phasing; (**11**) beam modulation input terminal; (**12**) etched-anodized heavy gauge aluminum panel. **Size:** 8 1/4" x 14 1/2" x 16 1/2".
ES-520—Net Each..... **$127.50**

SERIES E-300 SINE-SQUARE WAVE GENERATOR

Especially developed in response to the ever-increasing need for a versatile, reliable sine-square wave signal generator covering the audio-video range. Combines a stable, lab-type source of continuous audio range sine and square wave signals to 20 kc; additional continuous sine-wave output to 200 kc; PLUS extended square-wave coverage to 500 kc for direct testing of video amplifiers and similar wide-band electronic apparatus **Continuously Variable Frequency Coverage:** 20 cps to 200 cps (sine and square wave); 200 cps to 2000 cps (sine and square wave); 2000 cps to 20,000 cps (sine and square wave); 20 kc to 200 kc (sine wave only). **Output:** 2000 ohms, 20 volts maximum, flat through 200 kc. **Distortion:** Less than 1%, 20 cps through 200 kc. **Square Wave Rise Time:** Better than .05 microsecond. **Accuracy:** 1% or one cycle. **Fixed High Frequency Square Waves:** Provided through special terminated coaxial output cable. Four fixed frequency steps, rotary selectable: 50 kc, 100 kc, 250 kc, 500 kc. **Output:** 250 ohms, 8 volts peak-to-peak. **Rise Time:** Better than .05 microsecond. Terminated coaxial cable output. Direct-reading dial and panel of heavy gauge, etched-anodized aluminum. **Power Requirements:** 115 volts, 50/60 cycle AC.
Precision Apparatus Model E-300—In black, ripple-finished portable steel case, 10 1/2" x 12" x 6". Complete with all tubes, coaxial output cable and operating manual. **Write for Price.**

SERIES 570 7" OSCILLOGRAPH

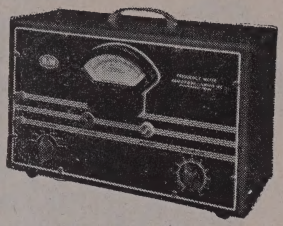
(**1**)—Push-pull vertical and horizontal DC amplifiers. (**2**)—"V" sensitivity 5 millivolts per inch, narrow band; 100 millivolts per inch wide band. (**3**)—"V" frequency response 30 db or better at 500 kc, narrow band; 3 db or better at 5 mc, wide band. (**4**)—Frequency compensated, cathode follower, step-attenuator decade input on both "V" and "H" amplifiers. (**5**)—Built-in, press-to-calibrate, 1 volt peak-to-peak voltage source. (**6**)—"V" pattern reversal on both narrow and wide band. (**7**)—"H" sensitivity 100 millivolts per inch, 3 db or better from DC to 1 mc. (**8**)—Internal linear sweep 10 cycles to 50 kc, plus automatically synchronized 30 cps and 7875 cps sweep for TV sync pulse analysis. (**9**)—Internal negative and positive sync selection. (**10**)—60 cps and 120 cps sync selection. (**11**)—Beam modulation input terminal. (**12**)—All 4 deflection plates directly available at rear. (**13**)—Separate DC and AC input terminals to both "V" and "H" amplifiers. (**14**)—Built-in 60 cps phasing and blanking controls. (**15**)—Panel mounted "V" and "H" balancing controls. (**16**)—Uses 7VP1, 7" CR tube. (**17**)—High-contrast calibrating graph-screen. (**18**)—Custom molded rubber bezel light shield. (**19**)—Custom-designed electron-gun shield.
Precision Apparatus Model 570—In heavy gauge, black ripple finished steel cabinet, 10 1/2" x 14 1/2" x 18 1/2". Complete with all tubes, operating manual. Net Each..... **$269.50**

233X-54A

Test and Panel Equipment

B & W AUDIO TEST EQUIPMENT

FREQUENCY METER MODEL 300



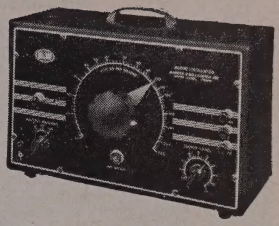
An accurate and convenient means of making direct measurements of unknown audio frequencies up to 30,000 cycles. Integral power supply. Extremely useful for routine checking of audio oscillators or tone generators. Housed in an attractive black crackle finished steel cabinet with carrying handle and rubber feet. Panel is of 1/16" reverse etched aluminum.

FEATURES

Frequency Range: 20 to 30,000 cycles in 6 ranges. **Sensitivity:** Minimum .5 volts input. **Wave Form:** Will operate on any wave form with peak ratios of less than 8 to 1. **Calibration:** When referenced against 60 cycle line frequency, all other frequencies will fall within ±2%.

Barker and Williamson Model 300—Net Each..... **$126.00**

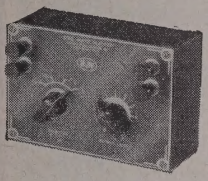
AUDIO OSCILLATOR MODEL 200



For all frequency and distortion measurements or use for a stable, accurately calibrated source of frequencies between 30 and 30,000 cycles. RMS harmonics at 3 volts on 500 ohm load less than 1% on all frequencies between 50 and 15,000 cycles. No zero reset or line calibration required. Self-contained power supply. Convenient output attenuator. **Response:** Better than ±1 db. **Stability:** Better than 1%. **Calibration:** ±3.0% scale reading. **Output:** 10 volts into 500 ohm load. Black crackle steel cabinet with carrying handle and rubber feet. 13¾" x 7¼" x 9½".

Barker and Williamson Model 200—Net Each..... **$138.00**

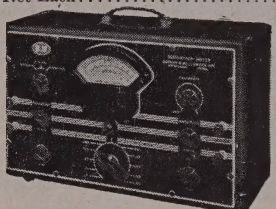
SINE WAVE CLIPPER MODEL 250



Equipped with input and output terminals, an output volume control and selector switch. Speeds accurate analysis of audio circuits. Saves time. Provides a test signal particularly useful in examining the transient and frequency response of audio circuits. Designed to be driven by an audio oscillator, the clipper provides a clipped sine wave. **Dimensions:** 2" x 4" x 5½". Panel is of 1/16" reverse etched aluminum.

Barker and Williamson Model 250—Net Each..... **$10.00**

DISTORTION METER MODEL 400

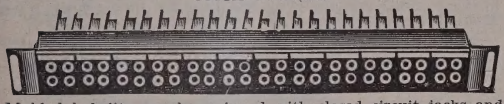


Sensitive field or lab instrument for checking residual noise and harmonic content in low level audio stages. Use also as an audio voltmeter and db meter between range of 30-45,000 cycles. Ideal for "proof-of-performance" tests required by FCC. **Range:** Fundamentals from 30 to 15,000 cycles. Measures harmonics to 45,000 cycles. **Sensitivity:** .3 volts min. input required for noise and distortion measurement. **Calibration:** Distortion measurements ±.5 db. Voltage measurements ±5% full scale at 1000 cycles. Black crackle steel cabinet with carrying handle, rubber feet and reverse etched aluminum panel. 13¾" x 7¼" x 9½".

Barker and Williamson Model 400—Net Each..... **$168.00**

AUDIO DEVELOPMENT EQUIPMENT

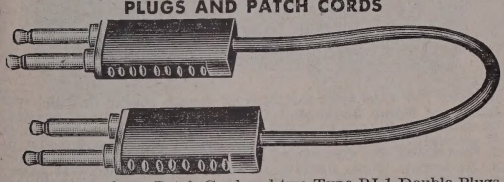
JACK PANELS



Molded bakelite panels equipped with closed circuit jacks and reinforced with steel for maximum strength and rigidity. Jacks have standard spacing for use with any double plug. Pairs of holes so spaced that plug cannot be inserted to connect one side of each of two circuits. Easily inserted designation card strips. Fit standard 19" relay rack. Width of panel for single row of jacks is 1¾", double row of jacks 2½".

Type PJ-341—Double Row Jack Panel with 48 closed circuit Jacks assembled complete. Net Each..... **$45.00**
Type PJ-31—Same as PJ-341 but without jacks. Net Ea. **9.45**
Type PJ-343—Single Row Jack Panel with 24 closed circuit jacks assembled complete. Net Each..... **$26.46**
Type PJ-33—Same as PJ-343 but without jacks. Net Ea. **8.52**
Type PJ-218—Closed Circuit Jack only. Net Each..... **.76**

PLUGS AND PATCH CORDS



Set consists of one Patch Cord and two Type PJ-1 Double Plugs. Cord is made of stranded, tinned-copper, 2-conductor, insulated wire. Heavy braid overall. Precision-made plugs of bakelite and brass. Have polarizing identification.

Type PJ-10½—Patch Cord Set. 6 in. long. Net Each.... **$7.08**
Type PJ-11—Patch Cord Set. 1 ft. long. Net Each..... **7.26**
Type PJ-12—Patch Cord Set. 2 ft. long. Net Each..... **7.41**
Type PJ-13—Patch Cord Set. 3 ft. long. Net Each..... **7.59**
Type PJ-14—Patch Cord Set. 4 ft. long. Net Each..... **7.86**
Type PJ-15—Patch Cord Set. 5 ft. long. Net Each..... **8.07**
Type PJ-16—Patch Cord Set. 6 ft. long. Net Each..... **8.43**
Type PJ-10—Patch Cord Set. 10 ft. long. Net Each..... **8.93**
Type PJ-1—Double Plug only. Net Each..... **2.76**

Types listed below same as above, but with two PJ-5 Single Plugs.

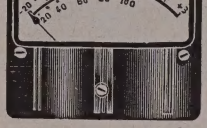
Type PJ-50½—Patch Cord Set. 6 in. long. Net Each.... **$3.48**
Type PJ-51—Patch Cord Set. 1 ft. long. Net Each..... **3.63**
Type PJ-52—Patch Cord Set. 2 ft. long. Net Each..... **3.83**
Type PJ-53—Patch Cord Set. 3 ft. long. Net Each..... **4.10**
Type PJ-54—Patch Cord Set. 4 ft. long. Net Each..... **4.43**
Type PJ-55—Patch Cord Set. 5 ft. long. Net Each..... **4.76**
Type PJ-56—Patch Cord Set. 6 ft. long. Net Each..... **5.25**
Type PJ-50—Patch Cord Set. 10 ft. long. Net Each..... **5.81**
Type PJ-5—Single Plug only. Net Each..... **0.78**

REPLACEMENT CORDS

These cords are the same fine quality 2 conductor cords as used on Patch Cord Sets and can be used with practically all makes of standard plugs without alteration.

Type PJ-20½—Replacement Cord. 6 in. long. Net Each. **$1.11**
Type PJ-21—Replacement Cord. 1 ft. long. Net Each.... **1.50**
Type PJ-22—Replacement Cord. 2 ft. long. Net Each.... **1.65**
Type PJ-23—Replacement Cord. 3 ft. long. Net Each.... **1.74**
Type PJ-24—Replacement Cord. 4 ft. long. Net Each.... **1.80**
Type PJ-25—Replacement Cord. 5 ft. long. Net Each.... **1.89**
Type PJ-26—Replacement Cord. 6 ft. long. Net Each.... **2.48**
Type PJ-20—Replacement Cord. 10 ft. long. Net Each... **3.15**

WESTON VU METERS



The VU meters, used today as the standard level indicator in the broadcast and recording field, were developed by Weston in collaboration with engineers of representative broadcasting organizations and communication groups. Weston VU meters carry both the type 30A and 30B scales. The 30B scale stresses per cent use of the transmitter output, and is the standard for broadcast service. The 30A scale stresses the level in VU, and is largely used in monitoring wire lines. Weston VU meters can be made in all DC meter models but the models 962 and 862 priced hereunder are the most popular with the models 742, 732 and 301 also available.

Weston Model 962 Type 30 VU Meter with Scale A or B. Rectangular semi-flush bakelite case, size 4.25" x 3.94" (not illuminated). Net Each..... **$40.38**

Weston Model 862 Type 30 VU Meter with Scale A or B. Rectangular semi-flush bakelite case, size 4.25" x 3.94 (illuminated) Net Each..... **$47.50**

DAVEN METER MULTIPLIERS

Volume indicator meters are calibrated to indicate levels over a very limited range. In program monitoring a multiplier is normally used in conjunction with the meter to set its peak indicated swing to zero V. U. The level is then accurately obtained by reading the setting of this meter multiplier.

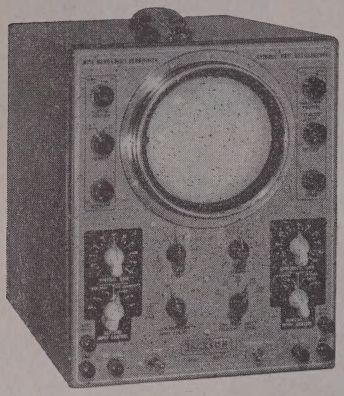
Daven No. TA-1000-1—Impedance 7100/3900, 20 steps of 2 db per step. Input resistance 880 ohm variable. Attenuation Characteristics: Clockwise for increase loss 1 MW +4 to +40 and off. Size: 2¾" dia. x 2 1/16" deep. Net Each.... **$17.50**
Many other types are available. Write for complete catalog.

JACKSON Test Equipment

THE '54 MODEL CRO-2 5" OSCILLOSCOPE

VHF—UHF—COLOR

High Sensitivity—Wide Band. .018 RMS volts per inch —within 1 db to 4.5 MC CORRECT COLOR RESPONSE



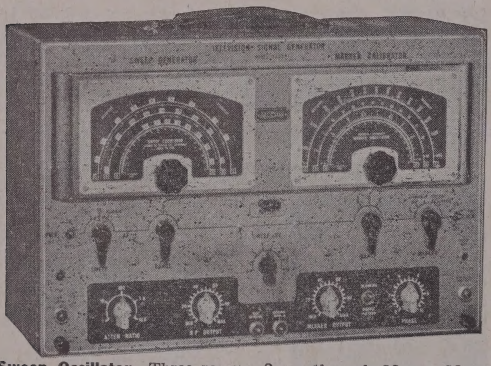
Wide Band Amplifier: Flat within 1 db from 20 cycles through 4.5 mc. This feature is absolutely essential for evaluating color burst signal and the Level of the Color Chrominance signal.
Vertical Deflection Sensitivity: Two ranges with three positions for each range. Has fully compensated attenuators. Excellent transient response. Each unit completely tested for "tilt" and "overshoot".
Sensitivity Ranges: With a band width of 20 cycles thru 100 kc, the sensitivity ranges are .018, .18, 1.8 RMS volts per inch. The wide band position 20 cycles through 4.5 mc has sensitiqity ranges of .25, 2.5, 25 RMS volts per inch.

Finish: An all steel gray Ham-R-Tex cabinet.
Model CRO-2—Shipping weight, 32 lbs. Net Each.. **$225.00**

MODEL CR-P SIGNAL TRACING PROBE

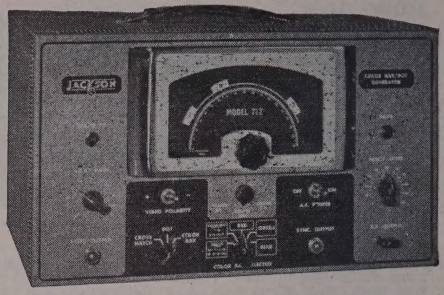
For Model **CRO-2** Cathode Ray Oscilloscope. For demodulating RF and IF voltages to provide visual Signal Tracing.
Model Dem-P—Net Each.....**$9.95**
Model LC2-IP Probe—Low Capacity Cathode follower probe. Net Each.....**$19.95**

MODEL TVG-2 TELEVISION SIGNAL GENERATOR



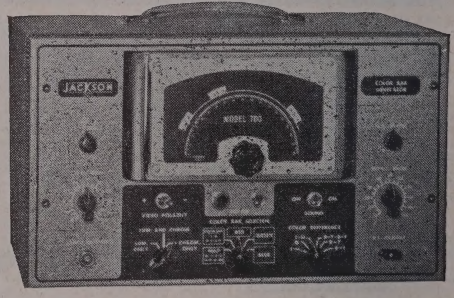
Sweep Oscillator—Three ranges, 2 mc through 38 mc, 38 mc through 108 mc, 174 mc through 216 mc, all on fundamentals. Continuous tuning over all ranges. Reversible direction of sweep.
Sweep Width—Electro-mechanical sweep. Adjustable from .0 mc through 18 mc in 8 steps. Extra width for badly detuned circuits.
Marker Oscillator—Complete marker coverage from 4 mc through 216 mc with highly stable Television IF stages.
Crystal Oscillator—Separate oscillator for use either as marker or calibrator. Stable circuit oscillates on any crystal fundamental from 3 mc to 20 mc. Output controlled by selector switch to provide variable marker, crystal marker or both for calibration purposes. BEAT DETECTOR incorporated for audible or visual checking of beay between marker and crystal.
400 Cycle Modulation—Provided for use with either variable or crystal marker to adjust traps audibly or with meter.
Oscilloscope Timing—Phased 60 cycle sine wave timing voltage is provided with PHASE CONTROL to provide adjustment of double pattern. BLANKING also available for single pattern trace with reference base line for measurement.
Video Modulation—Provision made for insertion of video signal to modulate external marker output. Audio signal may also be used to produce horizontal or vertical lines for linearity checks.
RF Output—Completely controllable with output control and step attenuator. Output impedance 90 ohms.
Size—13" high x 8¼" deep x 19⅛" wide.
Weight—30 lbs.
Model TVG-2—Net Each..... **$259.95**

NEW MODEL 712 COLOR BAR/DOT GENERATOR



Complete instrument for color testing, includes all NTSC color signals, plus complete synchronizing. Positive or negative video output, single color bars or multi-bar pattern. RF output for channels 3 through 5. Crystal controlled color and sound oscillators; white dots for 3-gun conversion checks. **Signal Outputs:** (1) Composite video of either polarity, adjustable amplitude to 2 volts across 90 ohms. (2) Modulated RF channels 3 through 5, 0.1 volt across 300 ohms. (3) Horizontal sync., positive polarity, 1 volt across 200 ohms. (4) Color subcarrier, 4 volts across 200 ohms at burst phase. **Synchronizing Signals:** (1) Horizontal sync., and blanking (FCC standards). (2) Vertical sync., serrated and locked to horizontal. (3) Vertical blanking, nominal 900 microseconds. (4) Color burst (NTSC standards). (5) Vertical sync. locked to power line frequency. **Video Signals:** (1) Dots (nominal 108 dots). (2) Crosshatch (nominal 12 by 9). (3) Color bars (5 switch positions). **Sound Carrier:** Approximately 25% of peak picture carrier, placed 4.5 mc from picture carrier. **Panel Controls:** (1) RF carrier tuning, channels 3 through 5. (2) Video output amplitude. (3) Horizontal speed. (4) Standby switch (standby sound on/off). (5) Video output polarity switch. (6) Power switch. (7) Function switch (crosshatch—dots—color bars). (8) Color bar switch (Multi, Color Diff., Red, Green, Blue). **Internal Adjustments:** Burst amplitude, 3.58 frequency vernier and vertical sync. **Dimensions:** 16½" wide, 9½" high, 10¼" deep. Designed to match other Jackson equipment, both in styling and exterior dimensions. **Net Weight:** 27 lbs. **Shipping Wt.:** 32 lbs.
Model 712—Net Each..... **$395.00**

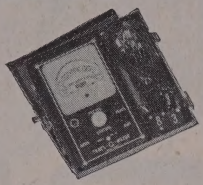
NEW MODEL 700 COLOR BAR GENERATOR



A Color Bar Generator for all color circuit checks in Color TV Receivers. **Signal Outputs:** 1. Composite video of either polarity, adjustable amplitude to 1 volt across 90 ohms. Either luminance or chrominance can be eliminated from the composite signal. 2. Modulated RF, Channels 3, 4 or 5, of 1 volt across 300 ohms. 3. Horizontal sync., positive polarity, 1 volt across 200 ohms. 4. Crystal controlled color subcarrier (3.5795 mc), 40 millivolts across 200 ohms at burst phase. **Synchronizing Signals:** 1. Color burst crystal controlled (NTSC standard). 2. Standard horizontal sync. and blanking signals. **Color Bar Signals:** 1. Simultaneous bar display with luminance and chrominance levels held to ±10%, phase angles to ±5%. 2. Color Difference Displays. Bars of zero luminance selectively available (Phase angles within ±2%). Background for all color difference bars in black, relative chrominance zero. 3. Single Bars, Primary colors, red, green and blue, selectively available. Each bar approx. 60% of screen width, luminance 0.3, chrominance 0.5. **Crystal Controlled Sound Carrier:** Approximately 25% of peak picture carrier, placed 4.5 mc from picture carrier. Sound carrier may be turned off or on at panel control switch. **Panel Controls:** 1. RF tuning, Channels 3, 4 or 5. 2. Video output amplitude. 3. Horizontal lock. 4. Sound On-Off. 5. Video output polarity switch. 6. Power switch. 7. Color bar selector. 8. Horizontal centering. 9. RF attenuator. 10. Luminance-Chrominance selector. **Internal Adjustments:** Burst amplitude, Color separation and modulation percentage. **Dimensions:** 6½" wide x 9½" wide x 10¼" deep all steel case finished in "Jacksonite." Uses 105-125 volts 60 cycles AC. Complete with tubes, crystals, connectors.
Model 700—Shipping Weight 30 lbs. Net Each..... **$295.00**

JACKSON Test Equipment

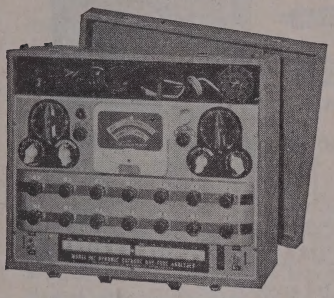
NEW MODEL 90 TRACE-O-METER



Traces up to 9 conductors or pairs at one time. Eliminates extra trips between cable ends. Does away with buzzers, hummers, earphones, voltmeters and other slow tracing methods. Checks up to 2500 feet or longer of #22 gauge wire. Shows "shorts" and "opens" directly, without guesswork. Indicates AC and DC voltages in "hot" lines. Just attach the numbered tracing blocks at one end of the cable to be traced. As each wire or pair is tested, the indicating meter shows the number of the test block connected to the corresponding wires at the far end of the cable. Thus, where color-coding is absent, mixed up or dulled by age, you still have fast, easy tracing. **Shows Opens and Shorts** instantly on indicating meter. Indicates Voltages—built-in neon lamp shows AC or DC voltages on "hot" wires and, by its brightness, gives an indication of the amount. Shows AC voltage from 60 to 600 and DC voltages from 80 to 600.

Model 90—Net Each **$39.95**

MODEL 707 CRT ANALYZER



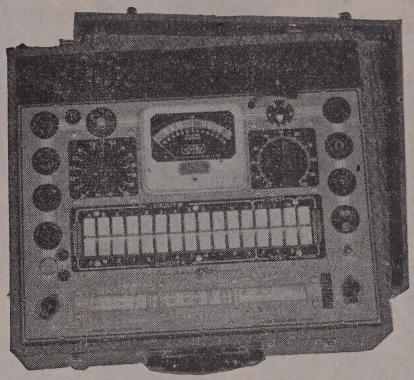
Provides complete CR tube testing facilities—beam current test—grid control test—gas content test—individual shorts test of all elements—complete element selection flexibility.

Tests all types—picture tubes, including both electrostatic and magnetic deflected types, scope tubes, radar and other types.

Flexibility—every element regardless of base arrangements may be checked. All elements isolated for inter-element leakage tests. Insures against obsolescence as new cathode ray tubes are announced. **Beam Current**—Screen intensity varies with beam current and not total cathode emission. All tests made to final anode. Meter also gives accurate forecast of end of tube life. **Grid Test**—Provided to observe grid control over beam current. **Gas Test**—Checks "gas current" to second anode. **Shorts Test**—All elements isolated for individual leakage. **VTVM**—provides true indications of all currents. Roll chart, CRT'S. Gray Ham-R-Tax panel, durable luggage covered wooden case.

Model 707—Net Each **$149.50**

MODEL 648 "DYNAMIC" TUBE TESTER



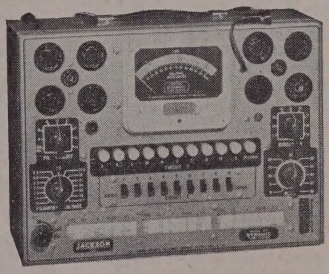
Incorporates the Dynamic test method, sequence switching and automatic line voltage indication. The **Dynamic test circuit** applies separate element voltages. Separate load circuits are used to test tubes under peak conditions. These voltages and loads have been carefully selected for each tube to meet most ideally the normal operating condition of the tube. The current flowing only in the plate circuit of the tube under test is indicated on the 4" meter. **Sequence Switching** makes possible SIMPLIFIED OPERATION. There are only three controls to be set according to chart listing for each tube: heater voltage, plate control and the Sequence Switch. Only other adjustments are line voltage control and shorts test. Line voltage control calibrated from 100-125 volts. Fast, accurate **Shorts Test** lamp indicates only when tube is shorted. The shorts control moves only through 4 positions—yet tests each tube element. Tested under a heated cathode condition. Correct test voltage and load circuits protect tubes against damage by overload. Even low-voltage battery types are provided with suitable potentials. Full GOOD-BAD scale used for each test. Meter scale calibrated to read percentage of relative micromhos. Special "low scale" readings are not required. Lie-line test shows accurate forecast of end of tube life. Reduced output caused by over-age gives reduced reading on meter. Steel cases and panels finished in gray Ham-R-Tex.

Model 648B—Bench-type steel case. Shpg. wt., 19 lbs. Net Each **$104.50**

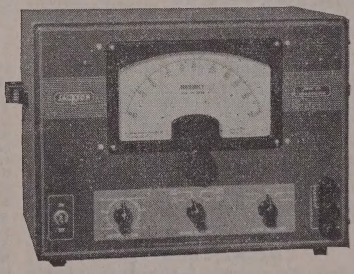
Model 648P—Portable tester in wood case. Shipping weight, 23 lbs. Net Each **$109.50**

Model CB48—Counter Base. Shpg. wt., 6 lbs. Net Each .. **$8.50**

A



B



C

MODEL 709 VTVM TELE-VOLTER—FIG. A

Big 7" sloping front meter. Single probe for all scales. Built-in probe switch changes probe from DC to AC or ohms. Removable alligator clip fits over prod point. Electronic meter guard. Reads directly all AC voltages in RMS, Peak and peak-to-peak values. Maximum scales length, accurate calibration. Expanded Ohms scale gives accurate readings to 1000 megs. Identi-Lite windows light up to show how meter is set; one window shows circuit, the other shows the range. 1-volt scale plus calibrated zero-center. Separate scale for 0-2.8 peak-to-peak volts. Zero center scales may be used on all but one volt ranges. Essentially flat to 4.5 mc through 0-100 scales. DC input, 11 megs. No extra probe needed for high frequency use. Battery or dial lights easily replaced without disturbing rest of instrument through bottom plates. **Ranges:** DC Left-hand Zero; 0-1, 5, 10, 50, 100, 500, 1000 volts. Calibrated Zero Center; .5-0-.5, 2.5-0-2.5, 5-0-5, 25-0-25, 50-0-50, 250-0-250, 500-0-500. AC Volts: RMS Values; 0-1, 5, 10, 50, 100, 500, 1000 volts. Peak-to-peak values, 0-2.8, 14, 28, 140, 280, 1400, 2800 volts. Ohms: 0-1000, 10,000, 100,000 ohms, 0-1, 10, 1000, 1000 megohms. **Tubes:** 1-12AU7; 2-6AL5. 105-125VAC, 50-60 cps. 8¾" x 8¼" x 7¼". Weight, 10 lbs.

Model 709 VTVM—Net Each **$95.00**

Model 79P—Hi-Voltage probe for DC to 30,000. Net... **$14.95**

Model 70RFP—Hi-Frequency (200 mc) probe. Net Each **9.85**

MODEL 715 CHALLENGER TUBE TESTER—FIG. B

Employs Jackson Dynamic test principle. Push buttons and rotary switches apply separate element voltages and load circuits to each tube. Proper test voltages protect tubes under test. Complete shorts and high resistance leakage test, faults indicated by flashing neon bulb. Heater voltage control shows actual voltage applied. 8 different sockets with blank spares for future types. Simplified, built-in roll chart provided. Jackson supplies free chart service and supplement service for one year after purchase. 4" square meter has BAD—GOOD and handy reference scale. All-steel gray cabinet. 9½" x 13" x 5½". Weight, 11 lbs.

Model 715—Net Each **$79.50**

MODEL 655 AUDIO OSCILLATOR (FIG. C)

Twenty cycles to 200,000 cycles (200 kc) for all audio and low RF requirements. Continuously variable glass enclosed range scale plus four-position switch.

Frequency calibration accurate to within 3%, or 1 cycle. Special RC circuit gives constant sine-wave form without the possibility of beats or spurious oscillation. Less than 5% Harmonic Distortion at all frequencies between 30 and 15,000 cycles, with a frequency characteristic of plus or minus 1 db in this range. Hum level down more than 60 db of maximum power output.

Provides 500 milliwatts with continuous variable control. Output impedances of 10, 250, 500, 5000 ohms or Resistive.

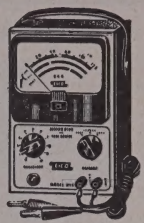
Model 655—Net Each **$135.00**

228-54C

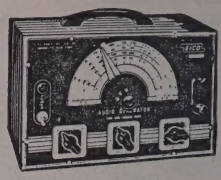
EICO LABORATORY PRECISION INSTRUMENTS & KITS

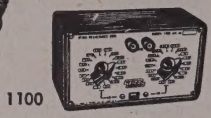
221

232 with Uni-Probe

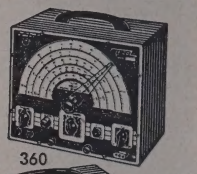

944

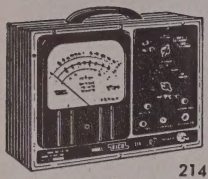
315

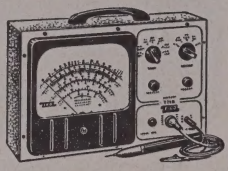

377


1100

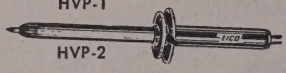
5 MC-4.5 MC


360

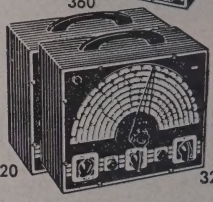

214


249 with Uni-Probe

HVP-1


HVP-2

PTP-11-25 PRF-11-25


320 322

HIGH QUALITY VTVM'S

MODEL 232 WITH UNIPROBE

Measures directly peak-to-peak voltage of complex and sine waves: 0-4, 14, 42, 140, 420, 1400, 4200 volts. DC/RMS sine volts: 0-1.5, 5, 15, 50, 150, 500, 1500 (up to 30,000 volts with HVP probe and 250 mc with PRF probe). Ohms: 0.2 ohm to 1000 megs. 7 non-skip ranges on every function. Calibration without removing from cabinet. 4½" meter can't burn out. Zero center. Frequency response: 30 cps—3 mc (up to 250 mc with PRF probe). Exceptional stability and accuracy. Compact, in 7" x 5" x 4" gray wrinkle steel case. Leather handle. Complete with dual-purpose AC/DC Uni-Probe. One probe performs all functions—half turn of probe tip selects DC or AC-ohms.

Model 232 VTVM—With AC/DC Uni-Probe. Wired and ready to use. Net Each..... $49.95

Model 232-K VTVM Kit—Same as Model 232, but is in kit form, ready to assemble. Net Each..... $29.95

MODEL 249 WITH UNI-PROBE

Same features as Model 232 above PLUS the extra convenience of the large 7½" dial for ease of reading. Also includes the dual purpose AC/DC Uni-Probe. An ideal bench instrument.

Model 249 DeLuxe VTVM—With Uni-Probe. Wired and ready to use. Net Each..... $59.95

Model 249-K DeLuxe VTVM Kit—Net Each..... $39.95

MODEL 221 VTVM

A popular, reliable, performance-proven instrument—over 50,000 now in use. 4½" meter can't burn out. Zero center for TV/FM discriminator alignment. AC/DC volts: 0-5, 10, 100, 500, 1000 (up to 30,000 with HVP probe, up to 250 mc with PRF probe, and peak-to-peak with PTP probe) Ohms: 0.2 ohm to 1000 megs. DB: −20 to +55. Input R: 25 megs. 1% precision multipliers. Stable, accurate double-triode bridge circuit. 3-color etched panel. Steel case.

Model 221 VTVM—Wired, ready to use. Net Each..... $39.95

Model 221-K VTVM Kit—Ready to assemble. Net Each.. $25.95

MODEL 214 DELUXE VTVM

Same versatility and quality features as Model 221 above PLUS the extra convenience of the big 7½" meter. Ideal for the bench.

Model 214 DeLuxe VTVM—Wired ready to use. Net Each.. $54.95

Model 214-K DeLuxe VTVM Kit—Ready to assemble. Net... $34.95

PROFESSIONAL QUALITY TEST AND ALIGNMENT INSTRUMENTS

MODEL 320 RF SIGNAL GENERATOR

A versatile professional signal generator. Fundamental freq. range 150 kc to 34 mc, calibrated harmonics to 102 mc. RF output attenuator 6-to-1 vernier dial. Modulated or unmodulated RF output: Over 100,000 microvolts. AM Freq.: Approx. 400 cps. Audio Output: 1½-2 V. 105-125 volts, 50-60 cycle AC. 8" high x 10" wide x 4¾" deep. Weight 10 lbs.

Model 320 RF Signal Generator—Factory wired ready to use. Net..... $29.95

Model 320-K Kit—Above in kit form ready to assemble. Net Ea. $19.95

MODEL 322 RF SIGNAL GENERATOR

All features above plus individual calibration on each of its 5 bands.

Model 322 RF Signal Generator—Factory wired ready to use. Net..... $34.95

Model 322-K Kit—Above in kit form ready to assemble. Net Ea. $23.95

MODEL 315 DELUXE RF SIGNAL GENERATOR

DeLuxe in every detail. Bandspread vernier tuning. Illuminated dial with anti-backlash, gear driven pointer under glass. VR tube regulated power supply for accuracy and stability. Freq. range: Fundamentals 75 kc to 50 mc in 5 ranges; calibrated harmonics 13 to 150 mc in 2 ranges. RF output: Over 100,000 microvolts. AM Freq.: 400 cps. Provision for external modulation. 105-125 volts, 50-60 cycle AC. 13" high x 12" wide x 7". Weight 21 lbs.

Model 315 DeLuxe RF Signal Generator Factory wired ready to use. Net Each..... $59.95

Model 315-K Kit—Above in kit form ready to assemble. Net Ea. $39.95

MODEL 377 SINE AND SQUARE WAVE AUDIO GENERATOR

Combines professional quality sine and square wave audio generators into one compact, economical unit. Resistance-capacitance (Wien bridge) tuning circuit with 1% precision resistors and 4-gang tuning condenser. Constant output over wide range: Sine Wave 20-200,000 cps in 4 bands; Square Wave 60-50,000 cps (5% tilt at 60, 5% rounding at 50,000 cps). Calibration accuracy: 3% or 1 cps, whichever is greater. Freq. Resp. 1.5 db, 60-150,000 cps. Output: 10 V across 1000 ohms rated load (100 milliwatts), 8 V across 500 ohms and 14 V across 10,000 or higher. Distortion: Less than 1%. Hum: Less than 0.4% of rated output. 105-125 Volts, 50-60 cycle AC. 7¼" high x 11⅛" wide x 7⅝". Weight 20 lbs.

Model 377 Sine and Square Wave Generator—Wired, ready to use. Net Each..... $49.95

Model 377-K Kit—Above instrument ready to assemble. Net Each..... $31.95

944 FLYBACK AND YOKE TESTER

A precision instrument for quick positive testing of flybacks and yokes in or out of the set. Uses sensitive grid-dip principle—shows up even 1 shorted turn. Exclusive separate calibration for air and iron core flybacks. Checks any inductance of not too low impedance; also for general continuity testing. 4½" 50 microampere meter, 3 colored scales. 7" x 5" x 4".

Model 944 Flyback and Yoke Tester—Wired, ready to use. Net Each..... $34.95

Model 944-K Kit—Above in kit form ready to assemble. Net Ea. $23.95

MODEL 1100 RESISTANCE SUBSTITUTION BOX

A means of rapidly substituting a wide range of RTMA resistance values in an operating circuit to determine the resistance required for best performance. Determining value of badly burned or illegible resistors by substitution. Ranges: 15 ohms to 10 megohms in decade multiples 15, 22, 33, 47, 68 and 100 ohms. 3¾" x 6½" x 3½". Weight 2 lbs.

Model 1100 Resistance Substitution Box—Factory wired, ready to use. Net Each..... $9.95

Model 1100-K—Above in kit form ready to assemble. Net Each..... $5.50

360 TV/FM SWEEP GENERATOR

Covers all VHF TV/FM channels and IF frequencies: 500 kc-228 mc on fundamentals. Continuous sweep width control, 0-30 mc. Xtal marker oscillator. Variable phasing of 60 cps output. Provision for injection of ext. marker.

Model 360 TV/FM Sweep Generator—Wired, ready to use. Net Each..... $49.95

Model 360-K Kit—Above in kit form ready to assemble. Net Ea. $34.95

Precision 5 mc and 4.5 mc Xtals. For above. Net Each..... $3.95

PROBES FOR VTVM'S

Model HVP-2 High Voltage Probe—Measures up to 30,000 V DC with any VTVM or 20,000 ohms/volt VOM. Choice of high quality multiple resistor to match most instruments. Net Each $4.95

Model HVP-1 High Voltage Probe—Similar to above but with clear lucite nose, black bakelite handle and disc barriers. Net Each..... $6.95

Model PTP-11-25 Peak-to-Peak VTVM Probe—Accurate reading of p-p voltages on DC scale of any 11 or 25 megohm VTVM. Traces complex waveforms in TV deflection circuits. Net Each..... $6.95

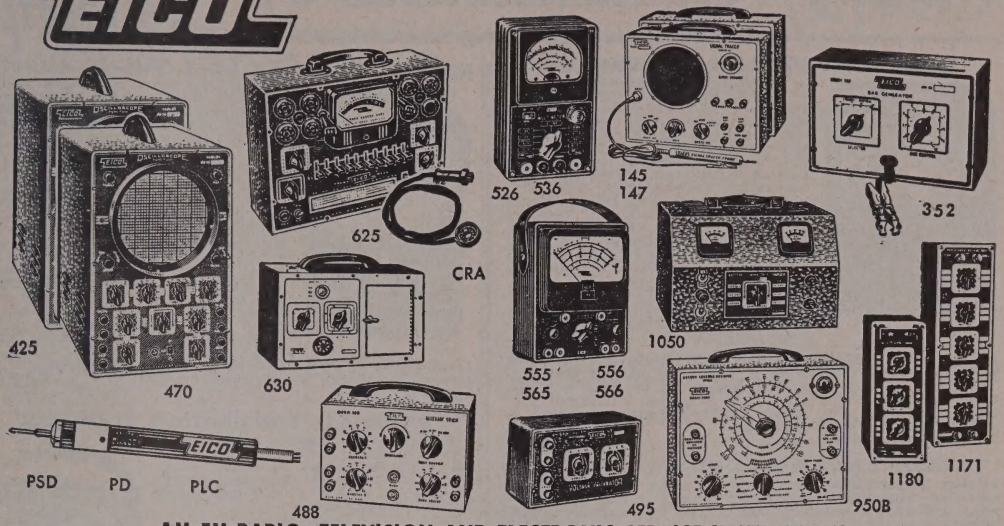
Model PTP-11-25 Kit—Above probe in kit ready to assemble. Net Each..... $4.95

Model PRF-11-25 Probe—For RF voltage measurements to 250 V with any 11 or 25 megohm VTVM. Accuracy ±10%. Net Each..... $4.95

Model PRF-11-25-K Kit—Above in kit ready to assemble. Net Each..... $3.75

426X-54B

EICO LABORATORY PRECISION INSTRUMENTS & KITS



AM-FM RADIO, TELEVISION AND ELECTRONIC SERVICE INSTRUMENTS

MODEL 425 5" OSCILLOSCOPE

Push-Pull Vertical and Horizontal amplifiers. High V & H sens.: 0.05-0.1 rms v/in. V & H resp.: 5 cps-500 kc. Useful to 2.5 mc. Sweep: 15 cps-75 kc. Z-axis intensity mod. Direct connect. to CRT plates.

Model 425 5" Oscilloscope—Wired and ready to use. Net... $79.95

Model 425-K Kit—Above in kit form ready to assemble. Net. $44.95

MODEL 470 7" OSCILLOSCOPE

High sensitivity at wide band width. Vertical: Flat ±2 db 10 cps-1 mc, 0.01 rms v/in. Horizontal: Flat 10 cps-200 kc, −4 db at 500 kc, 0.3 rms v/in. Sweep 15 cps-100 kc. 3-step freq. comp. attenuator. K-follower inputs and p-p outputs in both amplifiers. Return trace blanking, var. phasing of 60 cps sine sweep, int. voltage calibrator direct connect. to CRT plates; int. mod. input, sawtooth from sweep osc. and 60 cps outputs.

Model 470 7" Oscilloscope—Wired and ready to use. Net.. $129.50

Model 470-K Kit—Net Each... $79.95

MODEL 495 VOLTAGE CALIBRATOR

Converts oscilloscope into wide-range peak-to-peak, AC electronic voltmeter. Measures p-p voltage of complex TV waveforms on scope. Calib. of vert. and horiz. scope amplifiers. Square wave output at power line freq. attenuated by a calibrated smooth attenuator and a 4-step decade attenuator composed of 1% resistors. Output variable from zero on every range with full-scale readings of 0.1, 1, 10 and 100 volts p-p. Accuracy ±5% of full scale on each range. VR tube regulated power supply.

Model 495 Oscilloscope Voltage Calibrator—Wired, ready to use. Net Each..... $17.95

Model 495-K Kit—Net Each... $12.95

MODEL 488 ELECTRONIC SWITCH

Simultaneously view two patterns on one scope. Compare voltage and current amplitudes, waveforms, freq. and phase relationships, set up voltage ref. level or zero base line. Check amplifier dist. Cont. variable switching rates from less than 10 cps to over 2000 cps. Use as square wave generator.

Model 488 Electronic Switch—Net Each..... $39.95

Model 488-K Kit—Net Each... $23.95

OSCILLOSCOPE PROBES

Model PSD Demodulator Probe—Demodulates amplitude-modulated carriers between 150 kc and 250 mc. Net $5.75

Model PSD-K Kit—Net Each.... 3.75

Model PD Direct Probe—Trace waveforms in low Z or low freq. circuits. Eliminates stray pickup. Net Each.... $3.95

Model PD-K Kit—Net Each..... 2.75

Model PLC Low Cap. Probe—TV waveform tracing in high Z, high frequency or wide-band circuits. Net Each..... $5.75

Model PLC-K Kit—Net Each.... 3.75

PROFESSIONAL MULTIMETERS

Model 536 1000 Ohms/Volt Multimeter Low priced Multimeter with 31 full scale ranges: AC/DC Volts: 0-1, 5, 10, 50, 100, 500, 5000. AC/DC Current: 0-1, 10 ma, 1 A. Ohms: 0-500, 100K, 1 meg. 6 DB ranges: −20 to +69. 3" 400 μa meter movement. Bakelite case.

Model 536 Multimeter—Wired and ready to use. Net Each.... $14.90

Model 536-K Kit—Net Each... $12.90

Model 526 Multimeter—As above but with 1% precision resistors. Net $16.90

Model 526-K Kit—Net Each... 13.90

Model 566 1000 Ohms/Volt Multimeter—Wide range meter for servicing radios and appliances. 38 full-scale ranges. AC/DC Output V.: 0-1.5, 10, 50, 100, 500, 5000. AC/DC Current: 0-1, 10 ma; 0.1, 1 a Ohms: 0-500, 100K, 1 meg. 6 DB ranges: −20 to +69 4½" 400 μa meter movement. Bakelite c se.

Model 566 Multimeter—Wired and ready to use. Net Each.... $18.95

Model 566-K Kit—Net Each... $14.90

Model 556 Multimeter—As above but with 1% precision resistors. Net $23.50

Model 556-K Kit—Net Each... 16.90

Model 565 20,000 Ohm/Volt Multimeter—Wide range meter for radio, TV and electronics field servicing. 31 full-scale ranges. DC/AC output V: 0-2.5, 10, 50, 250, 1000, 5000. DC Current: 0-100 μa; 10, 100, 500 ma; 10 A. Ohms: 0-2000, 200K, 20 meg. 5 DB ranges: −12 to +55. 4½" μa meter movement.

Model 565 Multimeter—Wired and ready to use. Net Each.... $29.95

Model 565-K Kit—Net Each... $24.95

Model 555 Multimeter—As above but with 1% precision resistors. Net $34.95

Model 555-K Kit—Net Each... 29.95

MODEL 625 TUBE TESTER

Tests all conventional TV tubes. 10 individual lever-type element switches. 4½" meter, 3-color scale. Illuminated anti-backlash "Speedroll" roll chart. Protective overload bulb. Line-adjust control. 2 grid caps. Blank socket for future tube types. Pilot light test socket.

Model 625 Tube Tester—Net.. $49.95

Model 625-K Kit—Net Each... $34.95

Model CRA Pix Tube Adapter—Permits testing of TV Picture Tubes with Model 625 Tube Tester. Net Each..... $4.50

MODEL 630 CATHODE RAY TUBE CHECKER

Tests all types and sizes of TV and scope tubes. Bridge measurement of peak beam current (proportional to screen brightness), using neon lamp as sensitive balance indicator. Balancing control calibrated directly in terms of tube condition.

Model 630 Cathode Ray Tube Checker—Net Each..... $24.95

Model 630-K Kit—Net Each... $17.95

MODEL 352 BAR GENERATOR

Operates on Channels 2-6, 16-23 vertical bars (int. adj.) to check HOR. linearity. 13-22 horizontal bars (panel adj.) to check VERT. linearity. Shows picture size and V & H sync circuit stability. Output: 400,000 μv. Connects to antenna terminals of any set with special antenna clip. Entirely independent of station transmitted signals.

Model 352 Bar Generator—Net. $19.95

Model 352-K Kit—Net Each... $14.95

MODEL 145 MULTI-SIGNAL TRACER

A low-cost Multi-Signal Tracer that audibly traces all IF, RF, video and audio from antenna to speaker or CR tube without switching. Germanium xtal diode probe response well over 200 mc. Provision for tracing with VTVM or scope. Use as substitute speaker or amplifier, etc.

Model 145 Multi-Signal Tracer Net Each..... $28.95

Model 145-K Kit—Net Each... $19.95

MODEL 147 DELUXE MULTI-SIGNAL TRACER

High gain RF and low gain audio channels with both visual and aural monitors (electron ray tube and 5" speaker). Permits RF, IF and audio signal tracing in TV, FM and AM sets. Noise localizer circuits apply DC test voltage through probe to suspected component and simultaneously picks up and amplifies effect. May be connected as test speaker, output transformer and has output for VTVM or scope. Calibrated watt meter (fused) detects abnormal total wattage consumption in equipment under test. Shielded RF crystal in audio probes provided. Hum-balance control.

Model 147 DeLuxe Multi-Signal Tracer—Net Each..... $39.95

Model 147-K Kit—Net Each... $24.95

MODEL 1711 DECADE RESISTANCE BOX

Exceptionally accurate, wide-range, versatile instrument. 0-99,999 ohms in 1-ohm steps. 5 decades and ½% precision.

Model 1171 Decade Resistance Box—Net Each..... $24.95

Model 1171-K Kit—Net Each.. $19.95

MODEL 1180 DECADE CONDENSER BOX

Precision silver-mica capacitors (±1% accuracy, 500 V DC rated), arranged in 3 decades for extremely wide range of 100 mmf to 0.111 mf in steps of 100 mf. Positive detent ceramic wafer switches. Silver-plated contacts.

Model 1180 Decade Condenser Box—Net Each..... $19.95

Model 1180-K Kit—Net Each.. $14.95

MODEL 1050 6-VOLT AND 12-VOLT BATTERY ELIMINATOR AND CHARGER

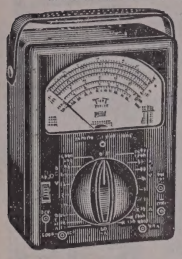
2 DC ranges: 0-8 V (10 A continuous, 20 A intermittent); 0-16 V (6 A continuous, 12 A intermittent). Continuous voltage adjustment: variac-type transformer. Separate voltmeter and ammeter. Heavy-duty selenium rectifier. Fused primary; automatic reset circuit breaker opens secondary circuit on overload.

Model 1050 Battery Eliminator and Charger—Net Each..... $38.95

Model 1050-K Kit—Net Each.. $29.95

Quality Test Instruments by TRIPLETT

MODEL 630 VOLT-OHM-MIL-AMMETER



A beautiful streamlined instrument in a completely insulated, molded case that provides AC-DC volts, DC microamps, milliamps, amps, ohms, megs, db's and output readings. All DC scales black on white; AC and Ohms, red on white. 5½" meter carriers Red • Dot Lifetime Guarantee. One switch which will select any range. Recessed knob flush with panel. Banana jacks for longer life and better contact. Special 1% resistors selected for greater accuracy. Selector switch of molded construction, completely enclosed, keeps dirt out and retains contact alignment permanently. Unit construction—resistors, shunts, rectifier, batteries all housed in molded base integral with switch. 3⅞" x 5½" x 7½" Panel black molded with engraved white markings.

RANGES

DC Volts: 0-3-12-60-300-1200-6000 at 20,000 ohms per volt. **AC Volts:** 0-3-12-60-300-1200-6000 at 5000 ohms per volt. **DB:** −30 to +70 (seven ranges). **DC Microamps:** 0 to 60 at 250 M.V. **DC Milliamps:** 0-1.2-12-120 at 250 M.V. **DC Amps:** 0-12 at 250 M.V. **Ohms:** 0-1000-10,000. **Megs:** 0-100. **Output:** condenser in series with AC volts. **Weight:** 4 lbs

Triplett Model 630—Net Each..... **$39.50**

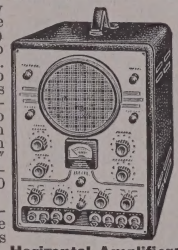
MODEL 630-A VOLT-OHM-MIL-AMMETER

Triplett Model 630-A—Has the same ranges and all the other advanced design features as Model 630 above, but with mirror scales and more accurate components(i.e., ½% resistors). Complete. Net..... **$49.50**

Triplett Model 630-T—Specially designed for telephone and industrial maintenance. Special straps hold instrument for easy reading, leaving both hands free. DC volts to 600 at 20K ohms/volt. ma. to 120 at 150 microv. AC volts to 600 at 3K ohms/volt. Ohms: 0₂1K-10K-100K-1 Meg.-10 Meg. Test leads, clips, special banana jack connectors to eliminate all shock hazard.

Triplett Model 630-T V-O-M—With instruction manual. Net Each..... **$52.50**

MODEL 3441 5-IN. OSCILLOSCOPE

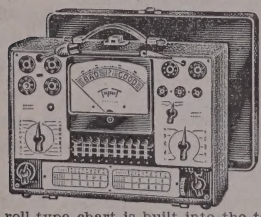


Peak-to-Peak voltmeter included. Low range 0.3 volt peak-to-peak. High range 0-1000. **Sensitivity:** 10 mv per inch (RMS) maximum. **Linear Time Base:** 10 cps to 60 kc/seconds linear available at panel. Phone jack is on front panel connected to output of vertical amplifier for listening as well as watching. Saw-tooth output supplies a saw-tooth wave form from 10 to 60,000 cycles and may be attenuated from 0-70 volts peak-to-peak. **Case:** Metal with black suede enamel finish, 15¹¹⁄₁₆" x 11½" x 16". Panel black, red and white characters etched in aluminum. 115 volts, 50-60 cps, 80 w.

Vertical Amplifier: Response usable beyond 6.0 mc. Shows a 300 kc square wave response. Two frequency response ranges with four-range compensated attenuator. **Horizontal Amplifier:** Frequency range flat within −20% from 20 cycles to 150 kc. Deflection sensitivity −.15 RMS volts/inch. **Input Impedance:** Vertical amplifier, 2 megs. in parallel with 45 μμf at input terminals. P.P. vert. and hor. amps. **Weight:** 28 lbs.

Triplett Model 3441—Net Each..... **$249.50**

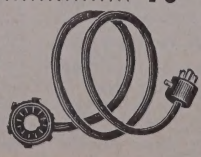
MODEL 3413-A TUBE TESTER



A tube tester with improved testing flexibility permitting checking any type radio receiving tube, miniature hearing aid tubes, and TV picture tubes. TV picture tubes are checked without removing them from the receiver, by use of an adapter that may be purchased separately. Checks electrical appliances, motors, etc. Flexible 3-position lever switches for complete coverage of present and future tube connections. Easy-to-read roll-type chart is built into the roll-type chart is built into the tester. Simplified test procedure makes it possible for user to add new tube data to chart when desired. Line voltage indication on center of meter dial permits observation and adjustment for line fluctuations. Filament voltage 0.63 volt to 110 volts in 14 steps. Large 6" meter. Red Dot Lifetime Guaranteed, has 3-color easy-to-read GOOD-?-BAD scale. Metal case, 15¹¹⁄₁₆" x 11½" x 6⅛", black satin wrinkle finish, with removable, hinged cover and leather handle. Panel etched in black, silver and red. Complete instruction supplied. Power, 115 volts, 50-60 cycles. Weight, 20 lbs.

Triplett Model 3413-A—Net Each..... **$79.50**

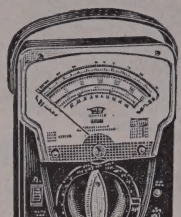
TV TUBE ADAPTER MODEL BV



With the BV Adapter, Model 3413-A will test every tube in a TV receiver, including the picture tube. Can be used on all Triplett testers. Test picture tubes right in the shipping carton or in the receiver without removing it. A time saver and safety factor. **$4.50**

Triplett Model BV—Net Each

NEW MODEL 630-NA VOLT-OHM-MIL-AMMETER



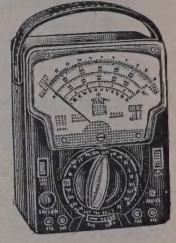
Incorporates meter protection against overloads; high accuracy on same scale for AC and DC; 70 ranges; 5½" meter; pressure contact switching. Red • Dot lifetime guarantee.

RANGES

DC Volts: 0-0.240-0.6-3-12-60-300-1200-6000 at 10,000 ohms per volt; 0-0.120-0.3-1.5-6-30-150-600-3000 at 20,000 ohms per volt. **AC Volts:** 0-3-12-60-300-1200-6000 at 5000 ohms per volt; 0-1.5-6-30-150-600-3000 at 10,000 ohms per volt. **DC Microamperes:** 0-120 at 240 microv.; 0-60-600 at 120 microv. **DC Ma.:** 0-1.2-12-120-1200 at 240 microv.; 0-6-60-600 at 120 microv. **DC Amps.:** 0-12 at 240 microv.: 0-6 at 120 microv. **Ohms:** 0-1K-10K-100K (4.4-44-440 at center scale). **Megohms:** 0-1-10-100 (4400-44,000-440,000 at center scale). Weight approximately 4 lbs.

Triplett Model 630-NA V-O-M—Complete with 48" leads, alligator clips, batteries, and instruction manual. Net Each..... **$69.50**

MODEL 631 COMBINATION VTVM-VOM



A Volt-Ohm-Mil-Ammeter and a Vacuum Tube Voltmeter combined in one compact low-priced instrument. 34 ranges. Sensitivity: V-O-M: 20,000 ohms per volt DC, 5000 on AC. VTVM: 11 megohms. Single switch selects all ranges.

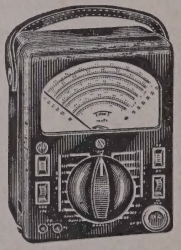
RANGES

Volt-Ohm-Mil-Ammeter: DC Volts: 0-3-12-60-300-1200 at 20,000 ohms per volt. **AC Volts:** Same range at 5000 ohms per volt. **DC Microamperes:** 0-60 at 250 MV. **DC Milliamperes:** 0-1.2-12-120-1200 at 250 MV. **DC Amperes:** 0-12 at 250 MV. **Decibels:** −30, +4, +16, +30, +44, +56. **Ohms:** 0-1500-15,000 (6.8-68 center scale, first division 0.1). **Megohms:** 0-1.5-150 (6800-680,000 center scale). **Output:** Condenser in series with AC Volts.

Vacuum Tube Voltmeter: DC Volts: 0-1.2-6-30-120 (First division is 0.02 Volt). Galvanometer Center mark "-0-" for discriminator alignment. **Size:** 5½" meter housed flush with panel. 3⅞" x 5½" x 7½" black molded case. **Leads:** 48" test prods, removable alligator clips at one end. 48" lead with 1 meg built in for VTVM. Banana type for low contact resistance. Pencil thin prods. Weight 4 lbs.

Triplett Model 631—Net Each..... **$59.50**

MODEL 650 VACUUM TUBE VOLTMETER



Reads AC rms Peak-to-Peak and RF to 110 mc with one probe. Separate 1 ACV and 5 ACV scales. 5½" meter flush with front panel. Single recessed range selector switch.

RANGES

DC Volts: 0-1-5-10-50-100-500-1000. **AC Volts:** 0-1-5-10-50-100-500. **Peak-to-Peak Volts:** 0-2.8-14-28-140-280-700 (Read on 0-1400 scale). Peak-to-Peak value of sine wave to 1400 volts. **Ohms:** 0-1000-10,000-100,000. **Megohms:** 0-1-100-1000. **Decibels:** Special tables in instruction book. Galvanometer Center mark "-0-" for discriminator alignment on all DCV ranges −.5 to +.5 volt on 0-1 DCV range. **Frequency Range:** A.C.R.F.: 15 cps to 110 MC at 30%. Weight 5 lbs.

Triplett Model 650—Net..... **$89.50**

DC High Voltage Probe—50kv-500 DC volt range, 10kv-100 DC volt range, 5kv-50 DC volt range. Net Each..... **$14.50**

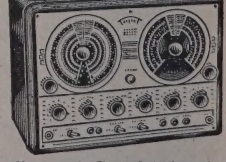
Stand—Holds tester at about a 45° angle. Net Each..... **50c**

UHF Probe—Available on special order..... **Write for Price**

Model 659 Carrying Case—Bk. leather, strap handle. Net. **$9.50**

Model 659-P Carrying Case—Black leather, strap handle, lined with ⅜" sponge rubber. Net Each..... **$14.50**

MODEL 3434-A SWEEP GENERATOR MARKER



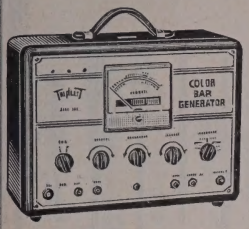
Sweep Center Frequency: Range 1. 0-60mc; Range 2, 60-120mc; Range 3, 120-240mc. **Sweep Width:** 0-12 mc (continuously variable). **Marker Frequency:** 3.5-4.9mc; 19-5-29.3mc; 29-48.6mc (fundamentals); 48.6 to 243mc on harmonics. **Crystal Frequency:** to 20mc (fundamental). Can be used to produce harmonics to 216mc. (crystals not furnished). **Modulation:** 600 cycles on both crystal and marker frequencies. **Audio:** 600 cycles. Sweep width better than 1 volt. Marker pip, dip and crystal. This unit supplies horizontal bars for vertical linearity and alignment. Complete interior shielding permits good attenuation. Variable marker on fundamentals provides continuous tuning over all present Video and Sound IF's. Regulated power supply for greater oscillator stability. Line filter to prevent leakage to line through power supply. Case, metal with black baked enamel suede finish, 15¹¹⁄₁₆" x 11½", 8¼". Panel, black, white and red characters etched on aluminum. Power supply 105-115 volts, 50-60 cycles, 55 watts. **Weight**, 23 lbs.

Triplett Model 3434-A. Net Each..... **$239.50**

510-55A

Quality Test Instruments by TRIPLETT

NEW MODEL 3439 COLOR-BAR GENERATOR



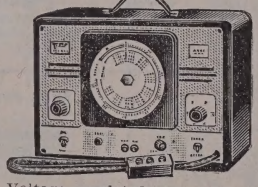
Indispensable for testing the overall performance of color TV receiver, including color phasing adjustments, color synchronizing and color matrixing. In operation it produces with crystal controlled accuracy the standard bars of colors corresponding to R-Y, B-Y, G-Y, I and Q axis. These 10 color bars are accurately spaced at 30° phase intervals. Outstanding features of this tester include: 1—Crystal controlled RF output; 2—Built-in VTVM circuit with meter on panel provides for quick and easy checking of sync, subcarrier and modulation amplitudes. 3—Unit completely self-contained—no extra accessories or equipment needed. Easy to set up, with RF output direct. 4—Sound carrier (unmodulated) insures precise tuning of the receiver, and permits checking sound rejection and presence of beat interference between the color subcarrier and the sound carrier. 5—Brightness modulation available to check for possible shift of hue in the bright areas or highlights. 6—Amplitude of color subcarrier is adjustable for checking the color sync lock action in the receiver. 7—Video signals of positive or negative polarity are provided for low impedance (75 ohms) and high impedance (5000 ohms) video circuits.

SPECIFICATIONS

Frequency: RF output—Channel 3 (61.25 mc picture, 65.75 mc sound) supplied regularly, Channels 2 or 4 supplied on special order. **Colors:** Crystal controlled accuracy, 10 bars of colors corresponding to R-Y, B-Y, G-Y, I and Q axis. **RF Output Impedance:** Approx. 300 ohms (at end of RF Output cable). **Composite Picture Signal:** 61.25 mc picture carrier; 15, 750 cps horizontal sync pulses; 3563.795 kc color subcarrier keyed at 189 kc. **Controls:** Video and Horizontal hold, Subcarrier modulation, Meter zero, Power on-off and metering selector. Modulation and sound carrier push buttons. **Output Connectors:** RF output; low video; high video and ground. **Output Leads:** RF 300 ohm matching shielded cable, low video lead (shielded coaxial cable); high video test leads. **Meter:** Large plastic full view meter with 4.14″ scale. **Case:** Metal with black baked enamel suede finish, 15 11/32″ x 11 1/32″ x 6 1/4″. Leather handle. **Panel:** Silver, black and red etched aluminum. **Knobs:** Black bar (rectangular with skirt), streamlined design. **Power Supply:** 115 volt, 50-60 cycles AC, 55 watts. **Weight:** Approximately 16 lbs.

Triplett Model 3439 Color Bar Generator—Net Ea. **$249.50**

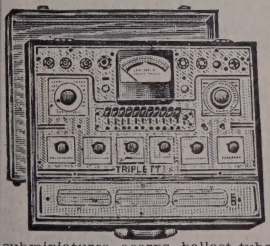
NEW MODEL 3436 UHF MARKER GENERATOR



UHF all fundamentals on channels 14-83 (470-900mc). No harmonics for confusion. Large dial with uniform frequency graduations—no crowding at end of dial. 13″ of long, easily readable scale. Marked in both frequency and channels. Hand drawn for extreme accuracy. RF output maximum, .5 volt. Variations in output minimized. Output impedance, 150 and 300 ohms. Piston-type attenuator; triple shielding. Excellent stability through special construction. Voltage regulated power supply. Adjustable modulation of RF signal at approximately 1000 cycles. 0-20 volt audio output at panel. On-Off switch and switch for preheating oscillator filament. Shielded output cable with 3 jacks (300 ohms, 150 ohms and grid). **Tubes:** 6AF4, 6J5, 6K6, VR105 and 6X5. Steel case with black baked on enamel. **Size:** 15 11/32″ x 11 1/32″ x 8 1/2″. Leather handle. **Weight,** 24 lbs. With instructions and leads.

Triplett Model 3436—Net Each..... **$169.50**

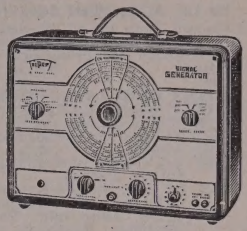
MODEL 3423 MUTUAL CONDUCTANCE TUBE TESTER



Patented circuit for tube testing employs actual signal (4kc) for grid signal. A detector in the plate circuit which responds to 4kc is used to extract the amplifier signal. Thus, hum and ripple and tubes with grids present no problem to the Triplett tester and cannot give false readings. Six plate voltages for tube tests, including 0-10 AC variable for low voltage tubes (also 10, 30, 70, 100 and 250). Tests all types of receiving tubes, low power transmitting tubes, rectifiers, thyratrons, voltage regulators, eye tubes, subminiatures, acorns, ballast tubes and pilot lamps. Continuity test circuit may also be used to check electrical appliances for shorts or open circuits. Flexible 3-position lever switches for complete coverage of both present and future tube connections. Only three positions on lever switch means no guess work on settings. Speed and ease of operation marks use of tester. Attractive case, hinged removable lid, 14 3/4″ x 18 25/32″ x 6 13/32″.

Triplett Model 3423—Net Each..... **$199.50**

NEW MODEL 3432-A TEST OSCILLATOR



Complete frequency coverage from 160 kc to 110 mc (220 mc using harmonics), with no skips in frequency for AM-FM radio, monochrome and color TV servicing. RF circuits double shielded with copper shields. Large, easily read, etched aluminum dial. Cathode follower output. Step-type attenuator. Jacks provided for either internal modulation or audio output. Smooth planetary drive dial. Metal case with black baked enamel suede finish, 15 11/32″ x 11 1/32″ x 6 1/4″. Black leather strap handle, rubber feet. Panel is aluminum, etched in silver, black, and red. Tubes: 12AU7, 6C4, 6X4. Wt. approx. 12 lbs. Power supply: 115 volt, 50-60 cycles AC. Pilot light on-off indicator. Output connections: Low capacity coaxial cable fitting for RF output. Two jacks for AF output and external modulation.

Triplett Model 3432-A Test Oscillator—Net Each..... **$99.50**

POCKET VOLT-OHM-MILLIAMMETER

Compact, pocket-size Volt-Ohm-Milliameter, featuring wide resistance ranges, maximum scale readability and simplified switching. Precision-made, it provides a complete "miniature lab" for voltage, resistance and current measurements. Banana-type jacks provide low contact resistance and trouble-free plug-in connections. High accuracy assured on voltage ranges by special resistors, and on current ranges by 250 millivolt Red • Dot Lifetime Guaranteed meter. All scale markings black on white except AC which is red on white. Black molded case, 3 1/8″ x 5 7/8″ x 2 1/8″.

RANGES

DC Volts: 0-10-50-250-1000-5000 at 1000 ohms/volt. **AC Volts:** 0-10-50-250-1000-5000 at 1000 ohms/volt. **DC Milliamps:** 0-10-100-500. **Ohms:** 0-2000-400,000 (12-2400 at center scale). Complete with batteries and 50″ test leads. Wt., 1 1/2 lbs.

Triplett Model 666-HH—Net Each..... **$24.50**

Model 669 Carrying Case—Net Each..... **$5.50**

MODEL 666-R POCKET VOLT-OHM-MIL-AMMETER

Recessed Selector Switch
Advanced Interior Design

Unit construction—resistors, shunts, rectifier, batteries are housed in molded base integral with switch. Resistors are precision film or wire-wound types, each in its own space. Enclosed selector switch of molded construction keeps dirt out and retains contact alignment permanently. 3″ 0-200 microammeter, 250 M.V. Red • Dot Lifetime Guaranteed. Mounted flush with panel. Banana jacks at top of panel reduce possibility of leads falling over the panel and meter dial. All connectors, knobs and controls are flush with the panel. Pre-calibrated rectifier unit for easy replacement. Self-contained, snap-in type batteries, easily replaced. Streamlined, black molded, completely insulated case, 3 1/8″ x 5 7/8″ x 2 1/8″. Engraved, white markings except AC, which are red.

RANGES

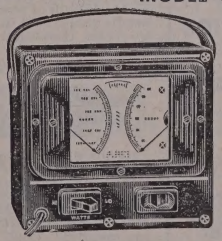
DC Volts: 0-10-50-250-1000-5000 at 1000 ohms/volt. **AC Volts:** 0-10-50-250-1000-5000 at 1000 ohms/volt. **DC Milliamps:** 0-10-100 at 250 M.V. **DC Amps:** 0-1 at 250 M.V. **Ohms:** 0-3000-300,000. **Megohm:** 0-3. (Compensated Ohmmeter circuit). **Leads:** 50″ long. Test prods with removable alligator clips at one end. Banana type plugs at other end for connecting to tester jacks, give low contact resistance at jacks.

Triplett Model 666-R—Net Each..... **$26.50**

Model 666-RL—666-R in portable roll-top case. Net... **$32.50**

Model 669 Carrying Case—Net Each..... **$5.50**

MODEL 660 LOAD CHEK



A time-saver. Helps prevent repair come-backs. No time lost in connecting this instrument. Just plug in the power cord of the radio and all meters are connected. Quick way to locate hidden shorts and overloaded circuits. Double meter indication provides simultaneous check of line voltage and power. Shows faulty power line wiring as well as proper functioning of the appliance under test. Simple operation by means of only one toggle switch to change to Watts range. Double range on Watts meter permits one unit to serve from a 5-tube radio to largest television set. Wide open meter window makes for easy reading of both Wattmeters and Voltmeter scale, even under poorly lighted conditions. **RANGES: Watts,** DC-AC 0-500-1000; **Volts,** DC-AC 0-150. Black molded case, 2 1/2″ x 5 1/2″ x 6″. Insulated to protect instrument from ground. Wt. 2 lbs.

Triplett Model 660—Net Each..... **$29.50**

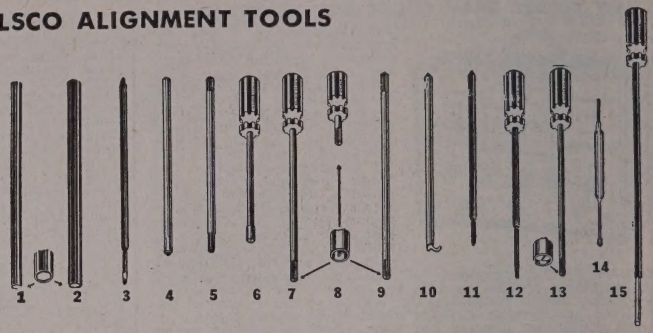
MODEL 661 LOAD CHEK

Designed for radio and low wattage appliances. Appearance and construction same as 660 with Watt range, 150-300. Net **$29.50**

510X-55A

Alignment Tools, Test Prods

WALSCO ALIGNMENT TOOLS



TV I.F. ALIGNMENT SCREWDRIVERS

Standard Tools for all TV and FM sets. Made of new flexible low-loss plastic with thin precision screwdriver tips.

Walsco No.		Fig. No.	Net Ea.
2516	8½" long, for No. 6 Studs	7	66c
2517	2" long, for No. 6 Studs	8	42c
2519	7" long—1 end for No. 6 Studs; other end for No. 4 Studs	9	63c
2524	8½" long, Slotted Type, for No. 6 Studs	13	66c
2526	6" long, Molded-Nylon Tool, hex stud one end, very small screwdriver other end. For Zenith, Hoffman, Raytheon and other sets—**Fig. No 14**		33c

WIRE DRESSING & ALIGNMENT TOOL

Made with thin (1/16") Butyrate handle, 7" long. Special tool on one end for dressing wires and finding loose connections or shorts. Other end has low capacity screwdriver tip.

2512 Wire Dressing and Alignment Tool.....10 **36c**

"SLIM-STICKS" SCREWDRIVERS

Extra-strong, high dielectric plastic for TV alignment. (Not illustrated).

2531 1/8" x 12" long.....**27c**
2534 5/32" x 12" long.....**27c**
2532 1/8" x 12" long.....**30c**
2535 5/32" x 12" long.....**30c**

"K-TRAN" ALIGNMENT TOOL

For adjustment of all miniature (K-Tran) I.F. transformers. Made of tough bone fibre. One end is machined to fit "K-tran" slots; other end is equipped with low-capacity metal screwdriver tip.

2515 "K-Tran" Alignment Tool.....11 **48c**

TUNING WAND

Made from Butyrate rod with inductance-increasing powdered iron core on one end and inductance-reducing brass piece on opposite end. Overall length 6".

Walsco No.		Fig. No.	Net Ea.
2540	Tuning Wand	5	33c

TV OSCILLATOR ALIGNMENT TOOLS

2518 For Philco Receivers...6 **$1.05**
2522 For Receivers with "Standard Coil" Front Ends.....12 **66c**
2523 Extra long (12"); with replaceable super-tough molded nylon tip, for general front-end alignment without removing from cabinet—**Figure No. 15**..... **1.08**
2523-1 Replacement Tip for tool No. 2523.....**18c**
(Standard Pack: 20 Tips)

¼" HEX. I. D. NEUTRALIZING WRENCH

Very durable. Can be cut if corners become rounded from wear. Overall length 7½", O. D. 3/8" round.

Walsco No.		Fig. No.	Net Ea.
2503	Clear Lo-loss Plastic Wr.	1	27c

5/16" HEX. I.D. NEUTRALIZING WRENCH

Same construction as ¼" wrench listed above. Overall length 7½", O. D. 7/16".

2508 Clear Lo-loss Plastic Wr...2 **27c**

DUPLEX ALIGNMENT SCREWDRIVER

Precision made. Ground or molded to fit large or small screws. Width of blade on large end 7/32"; on small end 5/32". Thickness to conform to standard slot dimensions. Overall length 7".

2520 Fibre Screwdriver.....3 **33c**

METAL TIP ALIGNMENT SCREWDRIVER

Butyrate handle. This tool combines the low capacity effect of an alignment tool with the mechanical strength of a metal screwdriver. Diameter 7/32"; overall length 6".

2525 Alignment Screwdriver...4 **30c**

"SLUG SAVER" TUNER TOOL

Aligns standard coil front ends. Prevents loosing slugs.

2528 7½" long. (Not illustrated.)..**63c**

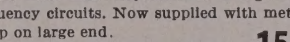
WALSCO TV-FM ALIGNMENT TOOL KITS

Handy TV-FM alignment tool kit or wall rack. Durable leatherette kit gives every tool necessary to align TV and FM sets. Handy wall rack for use above bench in shop. Provides proper place for each tool, and always handy. Kit includes alignment tools types: 2518 (Fig. 6); 2522 (Fig. 12); 2516 (Fig. 7); 2517 (Fig. 8); 2519 (Fig. 9); 2524 (Fig. 13); 2512 (Fig. 10); 2515 (Fig. 11). Also includes Type 2503, ¼" hex. neut. wrench (Fig. 1); Type 2508, 5/16" hex. neut. wrench (Fig. 2); Type 2520, duplex alignment screwdriver (Fig. 3); Type 2540, tuning wand (Fig. 5).

Walsco Kit No. 580—12 tools in a leatherette case. Shipping weight 3 lbs. **$7.20**
Net Each.....

Walsco Kit No. 581—12 tools on wall rack. Shipping weight 4 lbs. **$7.20**
Net Each.....

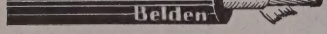
AMPHENOL ALIGNMENT TOOL



Made of Amphenol 912-A polystyrene. Has no capacity effect when aligning critical circuits. A necessary tool for anyone who must make adjustments on high frequency circuits. Now supplied with metal tip on large end.

Amphenol No. 55—Net Each....**15c**

BELDEN TEST LEAD WIRE



Tinned copper, extra flexible stranding; cotton wrap; rubber insulation. Red or black, specify color.

Belden No.	Gage	Voltage Rating	Net Each 10' Pkg.	Net Each 14' Pkg.*
8899	18	5000	30c	38c
8898	18	10000	38c	....

*7 ft. red, 7 ft. black.

SEE INDEX FOR COMPLETE LISTINGS OF TEST AND ALIGNMENT INSTRUMENTS

KLIPZON TEST PRODS

Built-in self-holding jaws slip on to wires, lugs, terminals easily; grips test point until pulled off. Connects and disconnects from "hot" circuits with safety to user. Fits into pin jacks, sockets, binding posts. Grips all wires from finest to No. 12 B & S GA. Points of nonmagnetic steel, sewing needle sharp with duralumin holders. Easy to pierce insulation, etc.

TEST PRODS TYPE A

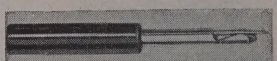
Just press prod needle against wire, slide prod forward until wire catches in jaw. Long (4¾") glossy plastic handles for high voltage testing. 4-foot super flexible, red and black rubber covered leads, no kinking or curling. Solderless connections in handles. Each pair provided with KLIPZON MINI-PROD connectors as terminals for easy connection to meter or instrument.

Per Pair, Net Each..... **$1.95**

PROD HANDLES TYPE A-1

Glossy plastic, 4¾" long, with solderless connection. Wire up to .140" diameter. Red or black. Net Each.....**50c**

MINI-PROD CONNECTORS TYPE B



Circuit connections easily changed without shutting off power. Insure maximum safety in testing. Length 1¾". Net Each...**25c**

ADAPTERS

Jumbo Adapters, Type J—Heavy duty, for large wires, lugs, terminals. Fits over regular Klipzon test points (also RETMA standard points). Plastic handle. Net **25c**

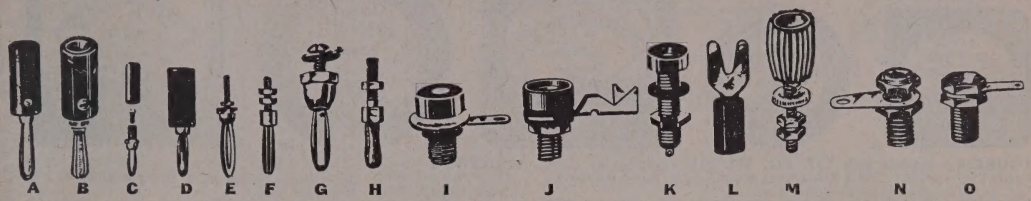
Mini-Prod Adapters, Type M—Convert old-style test points to self-holding type. Fits over RETMA standard test points or phone tips. Insert furnished for adapting to phono needle type at no extra cost. Plastic handle. Net Each.....**25c**

HI-FREQUENCY CRYSTAL PROBES

Type V—Maroon. For measuring accurately the VHF voltages with VTVM. Germanium Xtal in low-C, Hi-Z circuit. Adapts CRT's to wave analysis of modulated VHF. Reads to 200 mc within 10%, withstands 400 VDC loads. Input Res.: .25 meg at 500 Kc, 150K at 10 Mc., 25K at 100 Mc. With KLIPZON MINI-PROD Terminals. Input Cap. 3.5 mmf. **Type C**—Black. Adapts VOM's for indication and comparison of VHF voltages. Germanium Xtal and network for connection to DC of VOM having at least 200 micro-amps sensitivity. For peaking IF's and determination of gain per stage, etc. Same mechanical features as above. **$4.35**
Net Each, either type.....

H. H. Smith Components & Accessories

H. H. SMITH BANANA PLUGS AND JACKS



INSULATED BANANA PLUG. SPRING TYPE. (Fig. A). 1" handle, 1¾" overall. Solderless, side set screw for securing wire. Specify Red or Black.
H. H. Smith No. 204—Net Each... **15c**

INSULATED BANANA PLUG. SPLIT TYPE. (Fig. B). 1" handle, 1⅝" overall. Solderless side set screw for securing wire. Specify Red or Black.
H. H. Smith No. 213—Net Each... **12c**

INSULATED BANANA PLUG. SPRING TYPE. (Fig C). 1" handle 1 15/16" overall. Internal set screw for soldering, hexed brass material. Specify Red or Black.
H. H. Smith No. 212—
Net Each..... **18c**

INSULATED BANANA PLUG. SPRING TYPE. (Fig. D). 1" handle, 1¾" overall. Internal set screw for soldering. Specify Red or Black.
H. H. Smith No. 211—Net Each.. **15c**

BANANA PLUG. SPRING TYPE. (Fig. E). Threaded portion, 6-32 x ⅜". 1¼" overall.
H. H. Smith No. 102—Net Each... **12c**

BANANA PLUG. SPRING TYPE. (Fig. F). Threaded portion 6-32 x ½". 1⅜" overall.
H H. Smith No. 103—Net Each... **12c**

BANANA PLUG. SPRING TYPE. (Fig. G). 6-32 x ⅜" screw and lug supplied.
H. H. Smith No. 100—
Net Each..... **12c**

BANANA PLUG. SPLIT TYPE. (Fig. H). Threaded portion 6-32 x ½". 1¼" overall.
H. H. Smith No. 104—
Net Each..... **12c**

INSULATED BANANA JACK. (Fig. I). Diameter of head, 7/16", mounts in 5/16" hole, panels up to ⅜" thick. Specify Red or Black.
H. H. Smith No 205—Net Each... **12c**

INSULATED METER BANANA JACK. (Fig J). Diameter of head, ½", mounts in 5/16" hole, panels up to ⅜" thick. Recessed countersunk head. Specify Red or Black.
H. H. Smith No. 219—
Net Each..... **13c**

INSULATED COMBINATION JACK. (Fig. K). Use with either phone tip or banana plug. Mounts in 5/16" hole. Specify Red or Black.
H. H. Smith No. 206—Net Each... **15c**

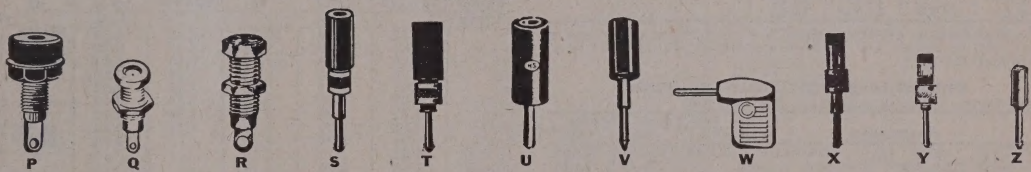
INSULATED SPADE LUG. (Fig. L). Handle ¾" long, 1⅝" overall. Specify Red or Black.
H. H. Smith No. 218—Net Each... **11c**
H. H. Smith No. 129—Lug only **12c**
Lots of ten. Net Price..... **12c**

INSULATED COMBINATION BINDING POST. (Fig. M). Molded head, top takes banana plug. 8-32 x ½" thread. Specify Red or Black
H. H. Smith No. 220—Net Each... **24c**

BANANA JACK. (Fig. N). Mounts in ¼" hole, panels up to ⅜" thick.
H. H. Smith No. 109—Net Each..... **9c**

BANANA JACK. (Fig. O). Mounts in ¼" hole, panels up to ⅜" thick.
H. H. Smith No. 101—Net Each..... **9c**

PHONE TIP PLUGS AND JACKS



INSULATED PHONE TIP JACK. (Fig. P). Mounts in 5/16" hole, panels up to ⅜" thick. Specify Red or Black.
H. H. Smith No. 202—7/16" head. **12c**
Net Each.....
H. H. Smith No. 223—½" head. Net. **15c**

ALL INSULATED TIP JACK. (Fig. Q). Mounts in ⅜" hole, panels up to 15/16" thick. Specify Red or Black.
H. H. Smith No. 240—Net Each... **30c**

METAL TIP JACK. (Fig. R). Mounts in ¼" hole, panels up to ⅜" thick. **9c**
H. H. Smith No. 107—Net Each..... **9c**

INSULATED SOLDERLESS TIP PLUG SR. (Fig. S). 1" threaded handle, 2 3/16" overall. Specify Red or Black.
H. H. Smith No. 200—Net Each... **13c**

INSULATED SOLDERLESS TIP PLUG, JR. (Fig. T). 1" threaded handle, 1⅞" overall. Specify Red or Black.
H. H. Smith No. 201—Net Each... **13c**

INSULATED SHORT PHONE TIP. (Fig. U). 1" threaded handle, 1½" overall. Specify Red or Black.
H. H. Smith No. 203—Net Each... **12c**

INSULATED HEAVY DUTY TIP PLUG. (Fig. V). 1" threaded handle, 1 7/16" overall. Specify Red or Black.
H. H. Smith No. 229—Net Each... **17c**

H. H. Smith No. 125—Tip only.
Net Each..... **9c**

MOLDED METER TIP PLUG. (Fig. W) Specify Red or Black.
H. H. Smith No. 235—Net Each... **27c**

SOLDERLESS PHONE TIP, SR. (Fig X). 1⅝" long overall.
H. H. Smith No. 105—Net Each... **10c**

SOLDERLESS PHONE TIP, JR. (Fig. Y). 1 5/16" long, overall.
H. H. Smith No. 106—Net Each... **10c**

SOLDER TYPE PHONE TIPS. (Fig. Z).
H. H. Smith No. 108—Standard. **18c**
Lots of ten. Net Price..... **18c**

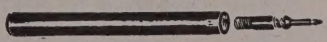
H. H. Smith No. 123—Large I.D. **24c**
Lots of ten. Net Price..... **24c**

SOLDERLESS TEST PRODS

THREADED SOLDERLESS TIP WITH CHUCK. Specify Red or Black.
H. H. Smith No. 302—5¼" overall. **27c**
Net Each.....

H. H. Smith No. 303—6¾" overall. **30c**
Net Each.....

PHONO NEEDLE TEST PRODS



THREADED NEEDLE CHUCK AND COLLAR. Specify Red or Black.

H. H. Smith No. 317—5" overall. **27c**
Net Each.....

H. H. Smith No. 318—6⅜" overall. **30c**
Net Each.....

HEAVY DUTY TEST PRODS

THREADED HEAVY DUTY PHONE TIP. Specify Red or Black.

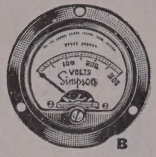
H. H. Smith No. 319—5¼" overall. **30c**
Net Each.....

H. H. Smith No. 329—6¾" overall. **33c**
Net Each.....

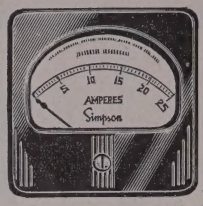
Accurate Panel Meters by Simpson

INSTRUMENTS THAT STAY ACCURATE

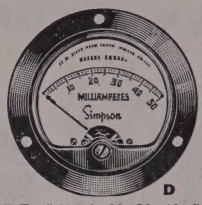
A



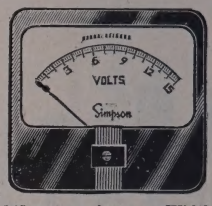
B



C



D



E

FIGURE A—Models 127, 137, 147, 157. 2½″ rectangular case. Width 2⅜″; height, 2⅜″. Mounts in round hole. Body diameter, 2 3/16″. Scale length, 1⅞″. Bakelite case.
FIGURE B—Models 125, 135, 145, 155. 2½″ round case, open face style. Flange diameter, 2¾″; depth overall, 2 3/16″; body diameter, 2 11/64″; scale length, 1⅞″. Bakelite case.
FIGURE C—Models 27, 37, 47, 57. 3½″ rectangular case. Width, 3″; height, 3⅛″. Mounts in round hole. Body diameter, 2¾″. Scale length, 2 9/16″. Bakelite case.
FIGURE D—Models 25, 35, 45, 55. 3½″ round case. Open face style. Flange diameter, 3½″; depth overall, 2¼″; body diameter, 2¾″; scale length, 2 9/16″. Bakelite case.

FIGURE E—Models 29, 39, 49, 59. 4½″ rectangular case. Width, 4 21/64″; height, 4 13/64″. Mounts in round hole. Body diameter, 2¾″. Scale length, 3 29/64″. Bakelite case.

ILLUMINATED DIALS

The 2½″ and 3½″ rectangular instruments indicated (*) in tables below are also carried in stock with lucite illuminated dials. Supplied complete with socket and 6 volt bulb for additional Dealer Net of **$1.50.** R.F. ammeters lucite illuminated must be supplied with external thermocouple. Add **$4.95** to Net for couple. **All instruments calibrated for use on non-magnetic panels.**

ALL PRICES BELOW ARE DEALER NET

VOLTMETERS

Model	125-127	25-27	29	155-157	55-57	59
Range	D. C.			A. C.		
0-1.5	.....	.....	.....	$ 7.50	$ 8.10	$ 9.75
0-3	$ 7.65	$ 8.85	$ 9.75	7.50	8.10	9.75
0-5	7.65	8.85	9.75	7.50	8.10	9.75
0-8	7.65	8.85	9.75	.....	.....	.....
0-10	7.65*	8.85*	9.75	7.50	8.10*	9.75
0-15	7.65	8.85	9.75	7.50*	8.10*	9.75
0-25	7.65	8.85	9.75	7.50*	8.10	9.75
0-50	7.95*	8.85*	9.75	7.50	8.10	9.75
0-100	7.95	8.85	9.75	7.50	8.10	9.75
0-150	7.95*	8.85*	9.75	8.85*	9.60*	10.50
0-200	7.95	8.85	9.75	.....	.....	.....
0-250	7.95	8.85	9.75	8.85	9.60	10.50
0-300	7.95*	8.85*	9.75	8.85*	9.60*	10.50
0-500	7.95	8.85*	9.75	12.75	13.50	14.40
0-750	7.95	8.85	9.75	12.75	13.50	14.40
0-1000	11.85	12.75*	13.65	12.75	13.50	14.40
0-1500	.....	12.75	13.65	.....	.....	.....
0-2000‡	11.85	12.75*	13.65	.....	.....	.....
0-2500	11.85	12.75	13.65	.....	.....	.....
0-3000††	11.85	12.75*	13.65	.....	.....	.....
0-4000	.....	12.75*	13.65	.....	.....	.....
0-5000	11.85	12.75*	13.65	.....	.....	.....

External resistors are furnished on A. C. meters having a range of 500 volts or higher. DC 1000 volts or higher. ‡Model 127 only. ††Model 125 only.

MILLIAMMETERS

Model	125-127	25-27	29	155-157	55-57	59
Range	D. C.			A. C.		
0-1	$7.65*	$8.70*	$9.75	.....	.....	.....
0-1.5	7.65	8.70	9.75	.....	.....	.....
0-3	7.65	8.70	9.75	.....	.....	.....
0-5	7.65	8.70	9.75	.....	.....	.....
0-10	7.65*	8.70*	9.75	$7.50	8.10	9.90
0-15	7.65*	8.70*	9.75	7.50	8.10	9.90
0-20	7.65	8.70	9.75	.....	.....	.....
0-25	7.65*	8.70*	9.75	7.50	8.10	9.90
0-50	7.65*	8.70*	9.75	7.50	8.10	9.90
0-75	7.65	8.70	9.75	.....	.....	.....
0-100	7.65*	8.70*	9.75	7.50	8.10	9.90
0-150	7.65	8.70*	9.75	.....	.....	.....
0-200	7.65*	8.70*	9.75	.....	.....	.....
0-250	7.65	8.70	9.75	7.50	8.10	9.90
0-300	7.65*	8.70*	9.75	.....	.....	.....
0-500	7.65*	8.70*	9.75	7.50	8.10	9.90
0-750	7.65	8.70	9.75	.....	.....	.....
0-1000	7.65	8.70	9.75	.....	.....	.....

AMMETERS

Model	125-127	25-27	29	155-157	55-57	59
Range	D. C.			A. C.		
0-1	$7.65	$8.70	$9.75	$7.50	$8.10	$ 9.90
0-1.5	7.65	8.70	9.75	7.50	8.10	9.90
0-2	7.65	8.70	9.75	7.50	8.10	9.90
0-3	7.65	8.70	9.75	7.50	8.10	9.90
0-5	7.65	8.70	9.75	7.50	8.10	9.90
0-10	7.65	8.70	9.75	7.50	8.10	9.90
0-15	7.65	8.70	9.75	7.50	8.10	9.90
0-25	7.65	8.70	9.75	7.80	8.40	10.50
0-50	7.65	8.70	9.75	.....	9.30	12.60
15-0-15	7.65	8.70	9.75	.....	.....	.....
30-0-30	7.65	8.70	9.75	.....	.....	.....
50-0-50	7.65	8.70	9.75	.....	.....	.....

A.C.-D.C. ammeters are self-contained for ranges up to and including 50 amperes. Higher range D.C. ammeters can be supplied with external shunts and include 6 foot leads. Higher range A.C. ammeters can be supplied with external current transformers and include 2 foot leads.

VOLUME LEVEL INDICATORS—DB METERS

Zero Power Level—6 milliwatts. 500 ohm line.

Description	Net Prices, Models 145-147	45-47	49
GP Type, −10 to +6 db, 5000 ohms	$11.25	$12.30	$13.95
Hi-Speed type, same specs.	.....	13.20	14.85
Lo-Speed type, same specs.	.....	13.20	14.85
VU METERS—Reference Level, 1 milliwatt. 600 ohm line.			
Not illum. A or B Scale. 3900 ohms	.....	$15.90	$16.80
Illuminated A or B Scale. 3900 ohms	.....	.....	19.50†

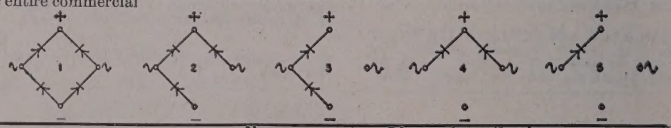
†Model 142—4″ Rectangular.

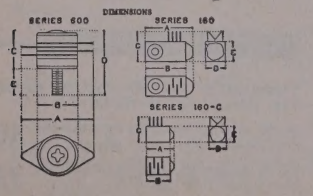
D. C. GALVANOMETERS

Scale	Sensitivity Micro-Amperes	Resistance	Model 125-127	Model 25-27
50-0-50	500-0-500	46 ohms	$7.65	$ 8.70
50-0-50	75-0-75	2000	9.45	10.50

CONANT INSTRUMENT RECTIFIERS

Series 500 Units are for general applications requiring output current for meters, relays or other apparatus requiring more than 1 milliampere. Recommended for all such applications at commercial and the lower audio frequencies. Will also operate up to 1,000,000 cycles per second. Series 160 and 160-C are for applications requiring good frequency response over the entire commercial and audio range from 0 to 75,000,000 cycles per second, especially when the meter, relay or other apparatus requires less than 1 mil for operation. TH, BTH, BTH-C, when used in full wave circuit, these types deliver a sensitivity midway between types HS or T and M. They are better than the two disc types, but not quite so good as the four disc bridge types. There is also the possibility of connecting this rectifier as a Type HS or T and of using the remaining disc for compensating.





	Type	Int. Cir.	Mount.	No. of Ter.	Wgt. (Gms.)	Dimensions (Inches) A	B	C	D	E	Net Each
Series 500	M	1	6-32 Stud	4	12.718	.890	.500	.485	.800	.315	$2.10
	TH	2	6-32 Stud	4	11.833	.890	.500	.479	.800	.321	1.86
	HS	3	6-32 Stud	3	10.631	.890	.500	.445	.800	.355	1.53
	T	4	6-32 Stud	3	10.631	.890	.500	.445	.800	.355	1.53
	H	5	6-32 Stud	2	9.072	.890	.500	.400	.675	.275	1.20
Series 160	B	1	#2 Screw	4	2.531	.690	.590	.375	.250	.250	2.10
	BTH	2	#2 Screw	4	2.183	.690	.590	.375	.250	.250	1.86
	BHS	3	#2 Screw	3	1.824	.690	.590	.375	.250	.250	1.53
	BT	4	#2 Screw	3	1.824	.690	.590	.375	.250	.250	1.53
	BH	5	#2 Screw	2	1.477	.690	.590	.375	.250	.250	1.20
Series 160-C	B-C	1	Fuse Clip	4	1.743	.345	.297	.310	.220	.200	2.10
	BTH-C	2	Fuse Clip	4	1.650	.345	.297	.310	.220	.200	1.86
	BHS-C	3	Fuse Clip	3	1.385	.345	.297	.310	.220	.200	1.53
	BT-C	4	Fuse Clip	3	1.385	.345	.297	.310	.220	.200	1.53
	BH-C	5	Fuse Clip	2	1.293	.345	.297	.310	.220	.200	1.20

Precision Panel Meters by TRIPLETT

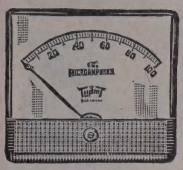


Fig. A
DC: 420-PL, 227-PL, 327-PL
RF: 440-PL, 347-PL
AC: 430-PL, 237-PL, 337-PL
VU: 327-PL

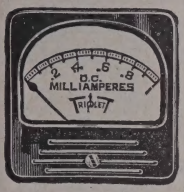


Fig. B
DC: 227-T; 327-T
AC: 237-S; 337-S
RF: 247-T; 347-T

GENERAL PANEL METER INFORMATION (ACCURACY ±2%)

Model Numbers	Scale Lgth. Inches	Flange Inches	Body Diam. Inches	Body Depth Inches	Case#	Illus.
221-PL DC; 241-PL RF	2.197	2 11/16	2 13/64	1	TP	C
227-PL DC	2.197	2 19/32	2 5/32	1 3/32	TP	A
231-PL AC	1.92	2 11/16	2 13/64	1	TP	C
221-T DC; 241-T RF	1.76	2 11/16	2 7/32	15/16	TS	D
231-S AC	1.58	2 11/16	2 7/32	1 5/16	TS	D
222-T DC; 242-T RF	1.76	2 9/16	2 1/16	1 1/16	Metal†	D
232-S AC	1.58	2 9/16	2 1/16	1 7/16	Metal†	D
227-T DC; 247-T RF	1.76	2 3/8	2 5/32	1	TS	B
237-S AC	1.58	2 3/8	2 5/32	1 3/8	TS	B
237-PL AC	11.92	2 19/32	2 5/32	1 3/32	TP	A
321-PL DC; 341-PL RF	3.11	3 1/2	2 3/4	1	TP	C
331-PL AC	2.65	3 1/2	2 3/4	1	TP	C
321-T DC; 341-T RF	2.49	3 1/2	2 3/4	15/16	TS	D
331-S AC	2.22	3 1/2	2 3/4	1 5/16	TS	D
322 DC; 342 RF	2.49	3 1/4	2 9/16	1 13/32	Metal†	D
332 AC	2.22	3 1/4	2 9/16	1 13/32	Metal†	D
327-PL VU	3.11	3 3/8	2 3/4	1 3/32	TP	A
327-T DC; 347-T RF	2.49	3	2 3/4	1	TS	B
337-PL AC	2.65	3 3/8	2 3/4	1 3/32	TP	A
337-S AC	2.22	3	2 3/4	1 3/8	TS	B
327-PL DC; 347-PL RF	3.11	3 3/8	2 3/4	1 3/32	TP	A
420 DC; 440 RF	4.06	4 3/8 x 4 9/16 h.	2 3/4	2 17/32	TS	B
420-PL DC; 440-PL RF	4.14	4 3/8 x 4 9/16 h.	2 3/4	1 1/16	TP	A
430 PL AC	3.6	4 3/8 x 4 9/16 h.	2 3/4	1 1/16	TP	A

#TP—Thermoplastic. TS—Thermosetting. Metal†—Metal with molded base.

DC instruments are the D'Arsonval type with extra-light moving coil; rugged construction; double all-metal bridges; special all-balanced frame. AC instruments are the moving iron vane type, air damped and have light moving parts. All have selected jewel bearings, highly polished with specially treated pivots. White enameled metal dials are standard; molded zero adjusters; ceramic stops.

Fig. C
DC: 221-PL; 321-PL
AC: 231-PL; 331-PL
RF: 341-PL

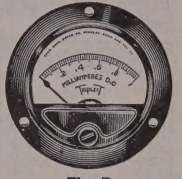


Fig. D
DC: 221-T; 222-T; 332
AC: 231-S; 232-S; 332
RF: 241-T; 242-T; 342

Instrument	Range	Resistance	Net Each 221-T 222-T 227-T	321-T 322 327-T	227-PL 221-PL	327-PL 321-PL	420-PL
DC Voltmeter 1000 ohms per volt See Note a	0–1		7.50	8.50			
	0–3						
	0–5						
	0–10						
	0–50				$8.00	$9.00	$9.50
	0–100						
	0–300						
	0–500						
DC Ammeters See Note b	0–1		7.50	8.50			
	0–5					9.00	
	0–10					9.00	9.50
	0–25						
	0–30						
	0–50						
DC Micro-ammeters See Note c	0–20	3000	13.50	14.50			
	0–50	1510	10.50	11.50	11.00	12.00	12.50
	0–100	825	10.00	11.00	10.50	11.50	12.00
	0–200	360	8.50	9.50		10.00	
	0–500	156	8.00	9.00			
DC Milli-ammeters See Note d	0–1	55.	7.50	8.50	8.00	9.00	9.50
	0–5	8.5					
	0–10	3.1					
	0–15	6.6					
	0–25	4					
	0–50	2			8.00	9.00	9.50
	0–100	1				9.00	
	0–150	0.6					
	0–200	0.5				9.00	
	0–300	0.33				9.00	9.50
	0–400	0.25					
	0–500	0.2				9.00	9.50
	0–750	0.13					
	0–1000	0.1					

Instrument	Range	Resistance	Net Each 241-T 242-T 243-T 247-T	341-T 342 347-T	341-PL 347-PL	440-PL
Thermo Ammeters RF See Note e	0–0.5	.93	8.50	9.50		
	0–1	.35				
	0–1.5	.21				
	0–2.5	.13				
	0–5	.06			10.00	10.50
	0–10	.03				

Instrument	Range	‡Ohms, volt or Resistance	Net Each 231-S 232-S 233-S 237-S	331-S 332 334-S 337-S	237-PL 231-PL	331-PL 337-PL	430-PL
AC Voltmeter See Note f	0–1.5	‡ 1.33	7.50	8.50			
	0–3	‡ 3.33					
	0–5	‡ 4					
	0–10	‡10					
	0–15	‡16					
	0–25	‡20					
	0–50	‡50				$9.00	
	0–100	‡91					
	0–150	‡125	$8.50	$9.50	$9.00	10.00	$10.50
	0–250	‡144	9.50	10.50			
	0–300	‡144	10.30	11.30		11.80	12.30
	0–500	‡125	13.80	14.80			
	0–750	‡125	16.40	17.40			
	0–1000	‡125	18.20	19.20			
AC Ammeters See Note g	0–1	.21	7.50	8.50			
	0–2	.11					
	0–3	.02					
	0–5	.01			8.00	9.00	9.50
	0–10	.005				9.00	9.50
	0–15	.002					
	0–25	.001				9.00	
	0–30	.001				9.00	
	0–50	.0005			8.00	9.00	9.50
	0–75	.0003		9.80			
AC Milli-ammeters See Note h	0–10	2900	7.50	8.50			
	0–15	1150					
	0–25	344					
	0–50	82					
	0–100	21				9.00	9.50
	0–200	6.7					
	0–250	3.4					
	0–500	0.8					

NOTES—a. 125 ohms volt wirewound (vacuum impreg.) available on special order. 0–1, 0–3 and 0–5 ranges, wirewound; others film type. **b.** DC ammeters self-contained up to and incl. 50 amps. Shunts 75 amps and higher are switchboard type with 5-ft. leads (not incl.). **c.** Use lower torque meters hor. only. 0–200 recommended for most photocell work. **d.** Ranges above 10 milliamperes shunted, have a drop of approx. 100 millivolts. **e.** Internal couples normally incl. at prices shown. If external couples required, specify, adding $4.50 to price. **f.** For use from 25 to 133 cycles. 0–500 meters supplied with external wirewound series resistors; 0–750 and 0–1000 ranges supplied with external resistor boxes. **g.** For 25 to 500 cycles. For ranges above 50 on 2" meters and above 75 on others use current transformers, with 5-amp secondary. Write for prices. **h.** Use on 25 to 500 cycles.

HIGH RANGE VOLTMETERS FOR AMATEURS

Designed particularly for radio amateurs. High range 3" D. C. Voltmeters—1000 ohms per volt. Provided with special external film-type multipliers mounted on bakelite strip. Specify this type when ordering, or standard voltmeters will be furnished. Available 3" case. Models 321-T, 327-T.

Range	Net Each	Range	Net Each
0-1000	$13.10	0-4000	$13.10
0-2000	13.10	0-5000	13.10
0-3000	13.10		

VOLUME UNIT METER

Internal Impedance 3900 ohms. Steady reference 1 Milliwatt. For 600 ohm line. 0-100% scale; also −20 to +3 V. U scale. Specify Type "A" or "B" scale preferred when ordering. Type "A" Scale: 0-100% −20 +3 VU on top arc. Type "B" Scale: 0-100% −20 +3 VU on bottom arc.

Model 221-PL—VU. Meter. Net **$15.00**
Model 327-T—VU Meter. Net. **15.50**
Model 321-PL—Meter. Net Ea.. **16.00**
Model 327-PL—VU Meter "A" scale. Net Each **16.00**
Model 420-PL—Meter. Net Ea.. **16.50**
Model 426—VU Meter. Net Ea.. **16.50**

DECIBEL METER

Up 6 Down 10 D. B. Meters. Calibrated for 500 ohm line. 6 Milliwatts. Zero D. B. = 1.73 volts. Accuracy 5%. Also special high and low speed types. Internal resistance, standard decibel meter, 5000 ohms. May be supplied with 2500 ohms resistance to special order.

Models 321-T or 327-T
Net Each **$12.40**

Model 321-PL or 327-PL
Net Each **12.90**

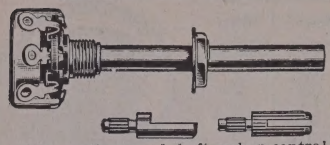
Models 420 or 426—Net Each. **13.40**

Write for complete listings of Triplett Panel Meters

308X-55C

Mallory Controls and Switches

MALLORY MIDGETROL



A high quality round shaft carbon control 1 1/16" in dia., designed to fit all applications. Special resistance element has ample safety factor for current-carrying ability. New type contact makes control smooth and quiet. New round shaft is easily cut to any required length. Shaft is machined to exact dimensions to meet replacement requirements. Two steel shaft and knob adapters for knurled or push-on knobs and one hex nut are included. Shipping weight 3 oz. Net Each..... **75c**

Mall. No.	Resis. Ohms	Taper	Mall. No.	Resis. Ohms	Taper
U-4	1M	4	U-415	125M	4
U-6	2M	4	U-42	150M	1
U-8	2M	4	U-43	200M	4
U-12	5M	1	U-44	250M	1
U-14	5M	4	U-45	250M	2
U-18	10M	1	U-46	250M	4
U-19	10M	2	U-48	500M	1
U-20	10M	4	U-50	500M	4
U-21	15M	1	U-51	750M	1
U-22	15M	2	U-53	1 Meg.	1
U-24	20M	1	U-54	1 Meg.	4
U-26	20M	4	U-155	1.5 Meg.	4
U-28	25M	2	U-55	2 Meg.	1
U-29	25M	4	U-56	2 Meg.	4
U-33	50M	1	U-255	2.5 Meg.	1
U-34	50M	2	U-57	3 Meg.	1
U-35	50M	4	U-59	3 Meg.	4
U-36	75M	1	U-65	5 Meg.	1
U-39	100M	1	U-67	5 Meg.	4
U-40	100M	2	U-82	10 Meg.	4
U-41	100M	4			

TAPPED MIDGETROLS

Same as above but are tapped to provide tone compensation where required. Net Each..... **$1.11**

TYPE UT SINGLE TAPPED

Mall. No.	Resis. Ohms	Tap At	Mall. No.	Resis. Ohms.	Tap At
420	250M	50M	443	1 Meg.	450M
425	350M	70M	450	2 Meg.	125M
427	500M	100M	448	2 Meg.	250M
429	500M	50M	449	2 Meg.	600M
430	500M	150M	454	2 Meg.	400M
431	500M	225M	451	2 Meg.	900M
438	1 meg.	300M	457	3 Meg.	900M
440	1 Meg.	200M			

TYPE UDT DOUBLE TAPPED

Mallory No.	Overall Resis.	Tap Resistance Tap 1	Tap 2
UDT-283	500M	100M	200M
UDT-289	1 meg.	250M	500M
UDT-291	1.5 meg.	225M	500M
UDT-295	2.25 meg.	250M	500M
UDT-296	2.25 meg.	500M	1 meg.

TV AND SPECIAL MIDGETROLS

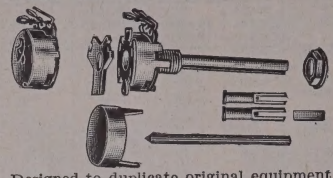
For use as exact replacements. Except for the shaft, these Midgetrols are of the same basic construction as the standard. A fixed, knurled, and slotted bakelite shaft protrudes 1/4" beyond the bushing. Type SUD-1253 is exact replacement for Zenith Model 28F20 and includes switch.

Mallory No.	Resist. Ohms	Taper	Net Each
SU-14	5M	4	75c
SU-20	10M	4	
SU-29	25M	4	
SU-35	50M	4	
SU-41	100M	4	
SU-46	250M	4	
SU-50	500M	4	
SU-54	1 meg.	4	
SU-56	2 meg.	4	
SU-565	2.5 meg.	4	
SU-59	3 meg.	4	
SU-67	5 meg.	4	

MIDGETROL SWITCHES, ETC.

Mallory No.	Description	Net Each
US-26	SPST Switch.....	36c
US-26T	SPST Switch with Dummy Term.....	45c
US-27	DPST Switch.....	36c
US-28	SPDT Switch.....	45c

DUAL CONCENTRIC MIDGETROLS



Designed to duplicate original equipment quickly, easily and economically. Both front and rear sections measure 1 1/16" dia. No special tools or soldering is necessary to assemble front and rear sections. Special bearing surface located on the inner shaft knob ends eliminate binding or eccentricity between the inner and outer shafts. Included with each front section is one inner shaft, one bakelite spacer, one coupling cup and two shaft ends patterned to fit .187 and .202 RTMA std. flatted or split knobs.

Type UF—Front Section and Hardware—Net Each..... **$1.20**

Type UR—Rear Section. Net Each..... **60c**

Front Section Mallory No.	Resis. Ohms	Taper	Rear Section Mallory No.	Resis. Ohms	Taper
UF13L	1000	4	UR13L	1000	4
UF152L	1500	4	UR152L	1500	4
UF23L	2000	4	UR23L	2000	4
UF252L	2500	4	UR352L	3500	4
UF33L	3000	4	UR53R	5000	2
UF53R	5000	2	UR53L	5000	4
UF53L	5000	4	UR14R	10M	2
UF73R	7000	2	UR14L	10M	4
UF14L	10M	4	UR253L	25M	4
UF253R	25M	2	UR54L	50M	4
UF253L	25M	4	UR15R	100M	2
UF34A	30M	1	UR15L	100M	4
UF54A	50M	1	UR254A	250M	1
UF54L	50M	4	UR254L	250M	4
UF753L	75M	4	UR354A	350M	1
UF15A	100M	1	UR55A	500M	1
UF15R	100M	2	UR35L	500M	4
UF15L	100M	4	UR16A	1 meg.	1
UF254A	250M	1	UR16L	1 meg.	4
UF254L	250M	4	UR26A	2 meg.	1
UF55A	500M	1	RU26L	2 meg.	4
UF55R	500M	2	UR36A	3 meg.	1
UF55L	500M	4	UR36L	5 meg.	4
UF16A	1 meg.	1	.....	.....	...
UF16L	1 meg.	4	.....	.....	...
UF155A	1.5 mg.	1	.....	.....	...
UF26A	2 meg.	1	.....	.....	...
UF26L	2 meg.	4	.....	.....	...
UF255L	2.5 mg.	4	.....	.....	...
UF46A	4 meg.	1	.....	.....	...
UF106L	10 mg	1	.....	.....	...

WIRE-WOUND FRONT SECTIONS

Diameter, 1 7/16".

Type WF—Net Each..... **$1.26**

Types 75LT251, 13-T251, 252-T223—Net Each..... **$1.50**

Mallory No.	Ohms	Mallory No.	Ohms
32	300	252	2500
751	750	252-T23	2500
751-T251	750*	23	2000
13	1000	33	3000
13-T251	1000*	53	5000
152	1500	73	7000

*Tapped at 250 ohms.

SINGLE TAPPED CONTROLS

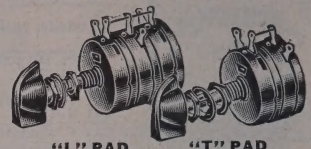
Same as above except tapped to provide tone compensation where required.

Front Section—Net Each..... **$1.35**

Rear Section—Net Each..... **.75**

Front Section Prefix UF Mall. No.	Res. Ohm	Tap At	Rear Section Prefix UR Mall. No.	Res. Ohm	Tap At
254-T753	250M	75M	254T753	250M	75M
55T54	500M	50M	354T74	350M	70M
55T254	500M	250M	55T54	500M	50M
16T154	1meg.	150M	55T254	500M	250M
16T25	1meg.	200M	16T1253	1meg.	125M
16T35	1meg.	300M	16T25	1meg.	200M
26T55	2meg.	500M	16T254	1meg.	250M
.....	.....	.....	16T35	1meg.	300M
.....	.....	.....	26T25	2meg.	200M
.....	.....	.....	26T95	2meg.	900M

T AND L PAD ATTENUATORS



"L" PAD "T" PAD

For controlling level of low impedance audio circuits and for volume controls. May be used with audio amplifiers having peak audio rating of 15 watts. Have continuous DC dissipation rating of 4 watts. Shaft and bushing specifications are same as for "M" type controls in dual and triple unit construction. Furnished with bar knob, dial plate with matched rotation, nut and washer.

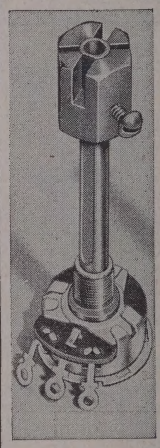
"T" Pad Attenuators Net Each. **$2.55**

Cat. No.	Ohms Imped.	Cat. No.	Ohms Imped.
T2	2	T200	200
T4	4	T250	250
T6	6	T500	500
T8	8	T600	600
T15	15	T1000	1000
T50	50	T2000	2000
T100	100	T3000	3000

"L" Pad Attenuators— Net Each..... **$2.25**

L2	2	L200	200
L4	4	L250	250
L6	6	L500	500
L8	8	L600	600
L15	15	L1000	1000
L50	50	L2000	2000
L100	100	L3000	3000

MIDGETROL SLOTTING JIG



Rapid slotting of Mallory Midgetrol shafts is possible with this handy slotting jig. It is easy to cut accurate slots in control shafts to fit standard control knobs. 1/8" and 1/4" slots in the jig guide the file or hacksaw in cutting the slots. Jig also may be used as a vise chuck for holding the shaft while cutting to required length. Easy to use—just slip jig over end of shaft, tighten set screw, and cut the slot with hacksaw or file. Made of hardened 5/8" hexagonal steel stock, cadmium plated. 3/4" long with lengthwise hole to accommodate the shaft. Set screw holds shaft in place.

Mallory No. FJ1—Slotting Jig. Net Each..... **75c**

EXPLANATION OF TAPERS

Taper No. 1—A modified logarithmic left hand taper. For use in audio or antenna shunt circuits or where only the center and left hand terminals are used.

Taper No. 2—A right hand logarithmic taper. Used in series circuits as in cathode voltage controls or where only the center and right hand terminals are used.

Taper No. 3—A combination left and right hand taper. For use in circuits where the control must perform both as a shunt and as a series control.

Taper No. 4—A linear taper. Really not a taper but commonly referred to as such. Used wherever a control should be such that voltage change is proportional to the degree of rotation.

Taper No. 4A—A modification of No. 4.

Taper No. 7—A form of left hand taper made only in the wire-wound types. Desirable for the antenna shunt plus bias control.

ACCESSORY PARTS

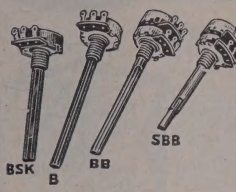
DS-35—Flatted split knurl shaft end. Special for Zenith. Net Each..... **27c**

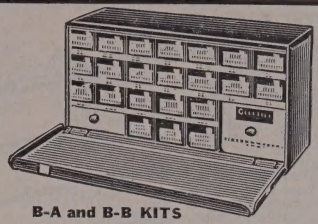
DS-36—Special 3" extension shaft for tubular shaft Midgetrols and 2-watt wire-wound controls. Also used to couple a front and rear section together to make a single-shaft dual control for oscilloscope and other push-pull amplifier service. Net **27c**

EB-158—Special bushing 7/16"—28 thread, 1 11/16" long with 3/8" milled double flat. Net Each..... **36c**

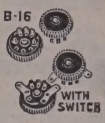
EB-214—Special bushing 1/2"—28 thread, 2 1/4" long with .430 milled flat. Ne .. **36c**

Centralab Volume and Tone Controls





B-A and B-B KITS



BLUE SHAFT RADIOHMS

MODEL B 15/16" SINGLE CONTROLS

Newest, most widely accepted line of 15/16" modern carbon type controls. Switch types are factory assembled and tested for smoothest action. Distinctive blue, anodized aluminum shafts, 3" long with universal fluted full length mill. Rating ½ watt. Type BSK units have 2⅛" brass split knurl shafts. Switches are universal DPST, easily wired for SPST or 3 wire usage.

Model B Radiohms—Except **B-60, B-70,** less Switch..... **75c**

Model B Radiohms Nos. B-60 and B-70—Less switch. Net **60c**

All available with factory attached switch. Add **S** to number and **30c** to net price.

CRL No.	Ohms Max.	Taper	CRL No.	Ohms Max.	Taper	CRL No.	Ohms Max.	Taper
B-4	500	C1	B-26	25,000	C1	B-68	1 meg.	C5
B-5	1,000	C1	B-27	25,000	C5	B-69	1 meg.	C1
B-6	2,000	C1	B-28	25,000	C6	B-697	1 meg.	C7
B-7	2,500	C1	B-31	50,000	C1	B-70	1 meg.	C2
B-8	3,000	C1	B-32	50,000	C2	B-744	1 meg.	C4
B-10	5,000	C1	B-35	75,000	C1	B-75	2 meg.	C1
B-11	5,000	C2	B-40	100,000	C1	B-76	2 meg.	C2
B-12	5,000	C5	B-41	100,000	C2	B-77	2 meg.	C5
B-13	6,500	C1	B-44	150,000	C2	B-83	2.5 meg.	C1
B-14	10,000	C1	B-46	200,000	C1	B-84	3 meg.	C1
B-15	10,000	C2	B-50	250,000	C1	B-85	3 meg.	C2
B-16	10,000	C6	B-51	250,000	C2	B-86	4 meg.	C1
B-17	10,000	C5	B-52	250,000	C5	B-87	5 meg.	C1
B-18	10,000	C4	B-58	500,000	C4	B-89	7 meg.	C7
B-20	15,000	C6	B-59	500,000	C1	B-98	10 meg.	C1
B-22	20,000	C1	B-60	500,000	C2	.....	.....	....
B-23	20,000	C5	B-61	500,000	C5	.....	.....	....
B-24	20,000	C6	B-617	500,000	C7	.....	.....	....

Model "B" Tapped Radiohms—Less switch Net Each..... **$1.11**

Available with factory attached switch. Add **S** to No. **30c** to net.

CRL No.	Resistance Total	Resistance Tap	CRL No.	Resistance Total	Resistance Tap
BT-33	50,000	25,000	BT-73	1 Meg.	300,000
BT-53	250,000	125,000	BT-74	1 Meg.	500,000
BT-55	250,000	75,000	BT-7417	1 Meg.	100,000
BT-57	350,000	70,000	BT-78	2 Meg.	1 Meg.
BT-63	500,000	50,000	BT-79	2 Meg.	400,000
BT-65	500,000	250,000	BT-80	2 Meg.	600,000
BT-66	500,000	100,000	BT-81	2 Meg.	200,000
BT-67	500,000	150,000	BT-82	2 Meg.	1 Meg.
BT-71	1 Meg.	500,000	.....	.....	.....
BT-72	1 Meg.	200,000	.....	.....	.....

Model BSK Radiohms—With split knurl shafts, 2⅛" long. Available with factory attached switch. Add **S** to No. **30c** to net.

CRL No.	Ohms Max.	Taper	Net Ea.	CRL No.	Resistance Total	Resistance Tap	Net Each
BSK-51	250,000	C2	66c	BTSK-66	500,000	100,000	$1.11
BSK-60	500,000	C2		BTSK-67	500,000	150,000	
BSK-70	1 Meg.	C2		BTSK-72	1 meg.	200,000	

FASTATCH SWITCHES TYPE KB

For field attachment to plain type controls bearing blue and white label. Rated 5 amps., 125 v. AC; 12 amps., 12 v. DC. Underwriters approval. Full directions included.

CRL No. KB-1—Single Pole Single Throw. Net Each..... **30c**

CRL No. KB-2—Double Pole Single Throw. Net Each..... **36c**

CRL No. KB-3—Single Pole Double Throw. Net Each..... **45c**

CRL No. KB-4—S.P.S.T. 8 amps. 125 v. AC, 20 amps. 12 v. DC. Net Each..... **50c**

SWITCH SHIELDS

Insulated line switch shields used for AC shielding where space permits and where required by Underwriters Laboratories. Quickly and easily attached to "–S" series switch type controls only. Also act as AC shielding in test instruments and Hi-Fi equipment.

CRL No. KB-5—Carton of 5. Net per carton..... **30c**

MODEL BB TWIN RADIOHMS

Two B Radiohms mounted in tandem on a single shaft which operates both units. Rating ½ watt. 3" fluted shaft. No switch types are available. Net Each..... **$1.50**

CRL No.	Resistance & Taper Front	Resistance & Taper Rear	CRL No.	Resistance & Taper Front	Resistance & Taper Rear
BB-1001	10M C1	25M C1	BB-104	500M C2	500M C2
BB-100	10M C4	25M C3	BB-1041	500M C1	500M C1
BB-101	10M C2	50M C1	BB-105*	50M C3	500M C3
BB-1011	10M C1	50M C1	BB-1041	500M C1	500M C1
BB-1051	50M C1	50M C1	BB-1051	50M C1	50M C1
BB-102	100M C2	100M C2	BB-107	1 meg. C2	1 meg. C2
BB-1021	100M C1	100M C1	BB-108	1 meg. C1	1 meg. C1
BB-103	250M C2	250M C2	BB-110	2 meg. C1	2 meg. C1
BB-1031	250M C1	250M C1	BB-112	5 meg. C1	5 meg. C1

*Special unit for Gallagher audio oscillator.

KIT ASSORTMENT B-A, 22 CONTROLS IN METAL CABINET

PLAIN TYPE		SWITCH TYPE	
3 B-60	½ meg. Taper C2	5 B-60-S	½ meg. Taper C2
2 B-70	1 meg. Taper C2	3 B-70-S	1 meg. Taper C2
BSK-60	½ meg. Taper C2	3 BSK-60-S	½ meg. Taper C2
2 BSK-70	1 meg. Taper C2	2 BSK-70-S	1 meg. Taper C2

CRL No. BA—Kit Complete with Cabinet. Net Each.. **$17.64**

KIT ASSORTMENT BB, 22 CONTROLS, 4 FASTATCH SWITCHES

Quan.	No.	OHMS	Taper	Quan.	No.	OHMS	Taper
	PLAIN TYPE			1	B-84	3 meg.	C1
1	B-5	1,000	C1	1	B-87	5 meg.	C1
1	B-10	5,000	C1		SWITCH TYPE		
1	B-26	25,000	C1	3	B-60-S	½ meg.	C2
2	B-31	50,000	C1	1	BSK-60-S	½ meg.	C2
2	B-40	100,000	C1	2	B-70-S	1 meg.	C2
1	B-59	500,000	C1	1	BT-80-S	2 meg.	C13
2	B-69	1 meg.	C1			Tap 600,000	
1	B-75	2 meg.	C1		FASTATCH SWITCHES		
2	B-83	2.5 meg.	C1	2	KB-1 SPST	1 KB-2 DPST	
					1 KB-3 SPDT		

CRL No. BB Kit Complete in Metal Cabinet. Net Each. **$19.53**

Handy PLASTI-PAKS, Models B & BSK controls in plastic boxes

The widely used half megohm and one megohm controls of C2 taper in hinged lid plastic boxes, size 8¼x4¼ x 1¼" deep. No additional charge for this convenient container.

No.	Plasti-Pak Contents as Follows:	Net
BP-1	12 B-60 controls, 4 KB-1 line switches.	$ 8.40
BP-2	12 B-70 controls, 4 KB-1 line switches.	8.40
BP-3	12 B-60-S switch-type controls.	10.80
BP-4	12 B-70-S switch-type controls.	10.80
BP-9	2 B-60; 5 B-60-S; 2 B-70; 3 B-70-S.	9.60
BP-12	Snap-tite Assortment: 1 BX-10; 2 BX-31; 1 BX-40; 1 BX-46; 2 BX-59; 1 BX-69; 1 BX-742; 1 BX-75; 1 BX-83; 1 BX-84.	5.40

Model B16 Radiohm-world's smallest special purpose control

Smaller than a dime, size ⅝" diameter without knob, 23/32" with knob. ¼" total thickness, including knob. Rating 1/10 watt.

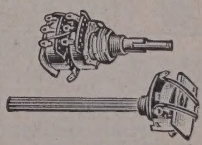
CRL No. Less Switch	Net Each	Resistance Ohms	Taper	CRL No. With Switch	Net Each
B16-118	$1.50	500,000	C2	B16-218	$2.40
B16-120		1 meg.	C2	B16-220	
B16-122		2 meg.	C2	B16-222	
B16-124		3 meg.	C2	B16-224	
B16-128		5 meg.	C2	B16-228	

VOLUME CONTROL TAPERS

C-1—Linear. **C-2**—Semi-log, 10% center. **C-3**—Right-hand semi-log, reverse of C-2. **C-4**—Modified log, 20% center. **C-5**—Right-hand modified log, 20% center. **C-6**—Modified log, 40% center. **C-7**—Symmetrical-straight line, slow resistance change at either end. **C-11**—Taper tapped at 50% rotation, 50% resistance. **C-12**—Tapped at 37½% rotation, 20% resistance. **C-13**—Tapped at 50% rotation, 50% resistance. **C-14**—Tapped at 62% rotation, 30% resistance. **C-15**—Tapped at 50% rotation, 10% resistance. **C-16**—Tapped at 62% rotation, 50% resistance. **C-17**—Tapped at 37½% rotation, 10% resistance.

CENTRALAB COMPENTROLS

A volume control and a special printed circuit network designed to reproduce better the apparent bass and treble response of amplifiers when volume is at low level. Compensated for and closely follows the curves of the Fletcher-Munson effect. Does not introduce a noticeable signal loss.



JUNIOR COMPENTROL

For use in radio sets (5 or more tube AC or DC), audio amplifiers or phono combinations. Switch is SPST and an insulated switch shield is furnished; for AC shielding.

C1-60 (½-meg) or **C1-70** (1 meg)—Without switch. Net.. **$2.50**

C1-60-S (½-meg) or **C1-70-S** (1 meg)—With switch. Net **$3.00**

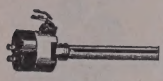
SENIOR COMPENTROL

Designed for use in hi-fi amplifiers or preamps. Compact dual concentric shaft unit to replace the standard gain control. Permits any degree of compensation at low listening levels where most compensation is required. Replaces ¼, ½ or 1 meg original unit. With special dual knobs and mounting nuts and lockwashers so that shaft length may be adjusted. For high level listening, compensation can be completely removed.

Centralab Model C2-100 Control—Net Each..... **$4.50**

Controls and Concentrikits by IRC

TYPE Q CONTROLS



A new volume control carefully engineered to meet the needs of modern television and radio replacement. Compact 15/16" design is augmented with short 1/4" bushing. This tiny control will fit smaller sets, and yet it capably handles the equirements of larger receivers. Uniform finish and blue bakelite base give the Q control a distinctively attractive appearance. Each unit is equipped with original IRC Knob Master Fixed Shaft. Knurled, slotted and flatted, it fits most knob requirements without alteration, except cutting to length. Long 3" shaft is adequate for many television sets. Quick, simple replacement of Knob Master Shaft with special fixed shaft is made easy by IRC Resilient Retainer Ring. This feature is revolutionary, with 13 inexpensive, interchangeable Fixed Shafts. It makes possible widest replacement coverage.

Type Q Single Control. Less Switch—Net Each..... **75c**

Type Q Tapped Control. Less Switch—Net Each..... **$1.11**

Quickly Attached Switches

IRC76-1—SPST Switch. Net.. **36c**

IRC76-2—DPST Switch—Net

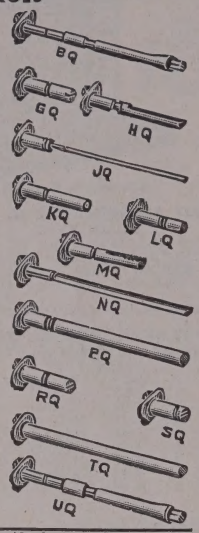
Interchangeable Fixed Shafts

Shafts BQ, JQ, MQ, NQ..... **27c**

Shafts GQ, HQ, KQ, SQ..... **18c**

Shafts LQ, PQ, RQ..... **21c**

Shafts TQ, UQ..... **36c**



IRC No.	Resis. Ohms	Tap At	Taper	IRC No.	Resis. Ohms	Tap At	Taper
11-103	500	.....	A	13-133X	500 K	125K	H
11-108	1 K	.....	A	14-133	500 K	.....	D
11-110	2 K	.....	A	17-133X	500 K	25K	X
13-111	2.5 K	.....	C	18-133X	500 K	50K	X
11-112	3 K	.....	A	19-133X	500 K	250K	X
11-114	5 K	.....	A	18-133XX	500 K	100-200K	X
11-115	7,500	.....	A	11-137	1 meg.	.....	A
11-116*	10 K	.....	A	13-137	1 meg.	.....	C
13-116	10 K	.....	C	13-137X	1 meg.	.25 meg.	H
14-116*	10 K	.....	D	14-137	1 meg.	.....	D
11-119	20 K	.....	A	17-137X	1 meg.	.35 meg.	X
16-119*	20 K	.....	X	17-137XX	1 meg.	.050-.1 meg.	X
11-120	25 K	.....	A	18-137X	1 meg.	.1 meg.	X
14-120*	25 K	.....	D	18-137XX	1 meg.	.25-.5 meg.	X
11-121	30 K	.....	A	19-137X	1 meg.	.5 meg.	X
11-123	50 K	.....	A	VC-539X	1 meg.	.5 meg.	X
13-123	50 K	.....	C	11-138	1.5 meg.	.....	A
14-123*	50 K	.....	D	11-139	2 meg.	.....	A
11-128	100 K	.....	A	13-139	2 meg.	.....	C
13-128	100 K	.....	C	13-139X	2 meg.	.5 meg.	H
11-129	200 K	.....	A	13-139XX	2 meg.	.5-1 meg.	X
11-130	250 K	.....	A	17-139X	2 meg.	.15 meg.	X
13-130	250 K	.....	C	18-139X	2 meg.	1 meg.	X
13-130X	250 K	125K	X	18-139XX	2 meg.	.25-.5 meg.	X
18-130X	250 K	60K	H	19-139X	2 meg.	.050 meg.	X
18-130XX	250 K	60-120K	X	11-239	2.5 meg.	.....	A
13-132	350 K	.....	C	11-140	3 meg.	.....	A
17-132X	350 K	35K	X	13-140	3 meg.	.....	C
18-132X	350 K	75K	H	11-141	5 meg.	.....	A
11-133	500 K	.....	A	11-143	10 meg.	.....	A
13-133	500 K	.....	C				

*Supplied with 270 ohm BW1/2 (1/2 watt) ins. wire wound resistor.

EXTENSION SHAFTS

These shafts attach to regular shafts, thus extending length to any needed size and frequently make it possible to use standard controls for "special" jobs.

IRC No.	Size	Net Each
441	4" x 1/4" dia. x 1/8" flat.....	24c
442	4" x 1/4" dia. x 3/8" flat.....	
443	4" x 3/8" dia. x 1/4" flat.....	
444	8" x 1/4" dia. x 3/8" flat for 4" length.....	

SLEEVE BUSHINGS

Five types to meet all mounting needs are available. Consult IRC catalog for illustrations and specifications.

Type S1—Net Each..... **27c** **Type S4**—Net Each..... **36c**

Type S2—Net Each..... **18c** **Type S5**—Net Each..... **36c**

Type S3—Net Each..... **36c**

PLAIN AND INSULATED SHAFT COUPLERS

For use with standard controls to meet special shaft requirements. Two set screws give rigid connection.

IRC Type C2—Insulated coupler for use with square type shaft used by Motorola. Net Each..... **18c**

IRC Type C3—Plain coupler to couple 1/4" shafts. Insert allows coupling of 1/4" shaft to 3/16" shaft. Net Each..... **18c**

VOLUME CONTROL TAPERS

A—Uniform potentiometer.
B—Semi-logarithmic. Tone or audio control.
C—Logarithmic curve. Audio or antenna shunt.
D—Tapered at both ends. Grid bias or antenna.
E—Rheostat—for cathode circuit, to control grid bias.
F—Tapered at both ends. Grid bias or antenna.
G—Logarithmic curve with very gradual taper from left.
H—Tapped logarithmic curve. Bass boost audio level control.
X—Special Purpose Taper.

NEW CONCENTRIKITS

A new development for replacement of TV concentric dual controls which will assemble into EXACT DUPLICATE CONTROLS in less than a minute. Each control assembled needs only two base elements and a pair of shafts in addition to CONCENTRIKIT. (In some instances a switch also is needed.) No filing or cutting of shafts is required with IRC's Exact Duplicate Shafts.

K-2 CONCENTRIKIT

For assembly of concentric dual controls having two carbon sections. Contains four parts: Panel Cover, Rear Cover, Bushing and Mounting Nut. Assembly instructions included. Requires following additional parts, depending upon specifications desired: 2—Base Elements (Type B); 1—Outer Shaft (Types P1 or P2); 1—Inner Shaft (Types R1, R2, R3 or R4); 1—Switch, when needed (Types 76-1 or 76-2). KS-2 Universal Shaft Kit may be used in place of Exact Duplicate Outer and Inner Shafts. **K-2 Kit,** Net **48c**

K-3 CONCENTRIKIT

For assembly of concentric and dual controls having wire-wound panel section and carbon rear section. Contains four parts: Panel Cover, Rear Cover, Ground Plate and Mounting Nut. Assembly instructions included. Additional parts required as follows: 1—Panel-Base Element (Type W); 1—Rear Base-Element (Type B); 1—Outer Shaft (Types P3 or P4); 1—Inner Shaft (Types R1, R2, R3 or R4); 1—Switch, when needed (Types 76-1 or 76-2). KS-3 Universal Shaft Kit may be used in place of Exact Duplicate Outer and Inner Shafts. **K-3 Kit,** Net Each.... **48c**

BASE-ELEMENT STOCK VALUES

Two types of Base-Elements are listed below: Type B for hanel or rear carbon sections and Type W for wire-wound panel sections. Two Base-Elements are required for each concentric dual.

*These types are new.

Plain Base Elements—Net each..... **30c**

Tapped Base-Elements—Net Each..... **66c**

IRC No.	Ohms	Tap†	Taper	IRC No.	Megs.	Tap†	Taper
*B17-105X	750	1	X	B11-128	.1	....	A
B11-108	1K	....	A	*B17-128	1.	....	X
*B11-109	1.5K	....	A	*B11-228	.125	....	A
*B11-110	2K	....	A	B11-130	.25	....	A
B17-110	2K	....	X	B13-130	.25	....	C
*B17-110X	2K	2	X	B13-130X	.25	10	X
*B17-111	2.5K	....	X	B18-130X	.25	7	H
*B17-111X	2.5K	3	X	*B11-131	.3	....	A
B11-112	3K	....	A	B13-132	.35	....	C
*B17-112	3K	....	X	B17-132X	.35	5	X
B11-114	5K	....	A	B18-132X	.35	8	H
B17-114	5K	....	X	B11-133	.5	....	A
*B17-114X	5K	4	X	B13-133	.5	....	C
B11-115	7.5K	....	A	B13-133X	.5	10	H
B11-116	10K	....	A	*B15-133X	.5	8	X
B17-116	10K	....	X	B18-133X	.5	6	X
*B17-117	11.5K	....	X	B19-133X	.5	11	X
B11-119	20K	....	A	B11-137	1.0	....	A
B11-120	25K	....	A	B13-137	1.0	....	C
*B13-120	25K	....	C	B13-137X	1.0	11	H
B11-121	30K	....	A	B17-137	1.0	....	X
*B11-122	35K	....	A	*B18-137X	1.0	9	X
B11-123	50K	....	A	B18-137XX	1.0	12	X
				B19-137X	1.0	13	X
*B11-125	75K	....	A				
*W11-102	300	....	A	B11-138	1.5	....	A
*W17-105	750	....	X	B11-139	2.0	....	A
*W17-105X	750	1	X	B13-139	2.0	....	C
*W11-108	1K	....	A	B13-139X	2.0	13	H
*W17-109X	1.5K	3	X	B17-139	2.0	....	X
*W11-110	2K	....	A	B18-139X	2.0	14	X
*W11-111	2.5K	....	A	B18-139XX	2.0	12	X
*W17-111	2.5K	....	X	*B11-239	2.5	....	A
*W11-112	3K	....	A	*B13-140	3.0	....	C
*W17-112	3K	....	X	*B18-140X	3.0	15	X
*W11-114	5K	....	A	B12-141	5.0	....	X
*W17-114	5K	....	X				
*W11-116	10K	....	A				

†1—at 250 ohms; 2—at 250 and 500 ohms; 3—at 500 ohms. 4—at 1K; 5—at 35K; 6—at 50K; 7—at 60K; 8—at 75K; 9—at .1 meg.; 10—at .125 meg.; 11—at .25 meg.; 12—at .25 and .5 meg.; 13—at .5 meg.; 14—at 1.0 meg.; 15—at 1.5 meg.

EXACT DUPLICATE SHAFTS FOR CONCENTRIKIT

93 types of Exact Duplicate shafts are available to provide wider replacement coverage. Factory tailored, these shafts assure a dependable mechanical fit. No filing, slotting, soldering or cutting required. Consult IRC Catalog for complete listing.

IRC Exact Duplicate Shafts—Net Each..... **36c**

UNIVERSAL SHAFTS FOR CONCENTIKIT

Use in place of exact duplicate shafts. KS-2 Shaft Kit with K-2 Concentrikit equivalent to former K-1 Concentrikit. Shaft Ends E-187 and E-202 are included in both Shaft Kits.

IRC Type KS-2 Universal Shaft Kit—Net Each..... **72c**

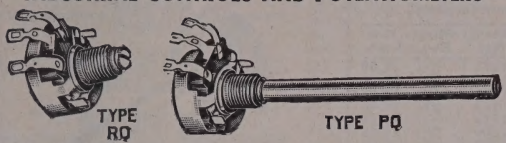
IRC Type KS-3 Universal Shaft Kit—Net Each..... **72c**

EXACT DUPLICATE CONTROLS

Specially engineered for servicemen who demand exact duplicates for replacement work, IRC's Factory-Assembled Exact Duplicate Controls give the widest TV coverage. Specified for 416 Trade Name Part Numbers used in over 5,000 TV models. Consult IRC TV Control Manual for complete listing and pricing information.

TV and Industrial Controls by IRC

TYPES PQ AND RQ INDUSTRIAL CONTROLS AND POTENTIOMETERS



The IRC Industrial Series features the new IRC Q Control. Design improvements make the new Q Control resistance element the best IRC has ever manufactured. An increased arc of rotation permits the same resistance ratios as have been previously used in larger IRC controls. Rotation same with or without switch. 3/8" bushing held to close tolerance for good shaft fit. Ground plate provides two locating tabs, either or both of which may be bent down if not needed. 15/16" diameter, 1/2 watt power rating.

Type PQ—Has a full round 1/4" shaft, approx. 3" long from mounting face, and a 3/8" bushing. Power rating 1/2 watt, 500 volts maximum. Molded base is blue.

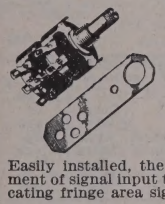
Type RQ—A very short screwdriver slot shaft, 1/4" diameter and approx. 1/2" long from mounting face. Bushing is 3/8". Power rating 1/2 watt, 500 volts maximum. Available in 32 standard values on a short delivery cycle.

Type PQ or RQ Control. Net Each..... **75c**

ADD PREFIX LETTERS PQ OR RQ TO IRC NUMBERS BELOW

IRC Type	Resist. Ohms	Taper	IRC Type	Resist. Ohms	Taper
11-103	500	A	11-128	0.1 meg.	A
11-108	1M	A	13-128	0.1 meg.	C
11-110	2M	A	11-130	0.25 meg.	A
11-112	3M	A	13-130	0.25 meg.	C
11-114	5M	A	11-133	0.5 meg.	A
11-115	7.5M	A	13-133	0.5 meg.	C
11-116	10M	A	11-137	1.0 meg.	A
13-116	10M	C	13-137	1.0 meg.	C
14-116	10M	D	11-138	1.5 meg	A
11-119	20M	A	11-139	2.0 meg.	A
11-120	25M	A	13-139	2.0 meg.	C
14-120	25M	D	11-239	2.5 meg.	A
11-121	30M	A	11-140	3.0 meg.	A
11-123	50M	A	13-140	3.0 meg.	C
13-123	50M	C	11-141	5.0 meg.	A
14-123	50M	D	11-143	10.0 meg.	A

TV ATTENUATOR

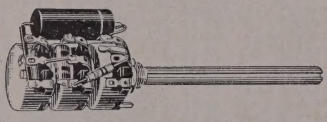


- **Reduces overloading effects on TV sets in strong signal areas.**
- **Diminishes interstation interference caused by nearby or powerful stations.**
- **Minimizes buzz due to high signal level in intercarrier systems.**
- **Permits easy adjustment of signal right at set.**
- **Frequently prevents mismatch of antenna load to set.**

Easily installed, the QJ-3 TV Attenuator permits ready adjustment of signal input to TV sets. Also useful in service work—duplicating fringe area signals when shop is near strong local station.

IRC Type QJ-3 TV Attenuator—Net Each..... **$1.98**

MODEL LC1 CONTINUOUSLY VARIABLE LOUDNESS CONTROL



Maintains proper balance of all frequencies in the audio spectrum at any listening level. With this control it is possible to reduce the output system to nearly whisper level and still retain nearly perfect balance in tone. This new loudness control is as easy to wire into an audio circuit as any standard three-terminal volume control.

Consists of three variable resistance units operated from one common shaft and in combination with the proper resistors and capacitors.

This unit is available constructed, or may be assembled in a short time with a standard IRC Type Q Volume Control and two IRC MULTISECTIONS. The multisections are rear control sections so designed that they may be added to Type Q controls in the same manner as switches. Necessary room behind panel: 1 3/4" for no switch; 2 5/16" with switch.

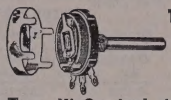
IRC Model LC1—Loudness Control, less switch. Net... **$5.97**

IRC PARTS FOR ASSEMBLY OF ABOVE CONTROL

IRC Part	Description	Net Each
Q11-133	Control (panel section).....	75c
M13-137	MULTISECTION (2nd section).....	75c
M13-138	MULTISECTION (rear section).....	75c
BTS	0.1 megohm, 1/2 watt resistor.....	10c
BTS	10K ohm, 1/2 watt resistor.....	10c

82 mmf capacitor (capacitors not supplied separately .03 mfd capacitor by IRC).

TYPE "W" WIRE WOUND CONTROLS



Dependable wire wound controls of uniform resistance change for power requirements up to 2 watts. 1 1/4" x 9/16". Shaft length 2 15/16". Without Switch. Net Each..... **75c**

Type W Control also available center-tapped for TV uses. Net Each..... **$1.11**

TYPE WK CONTROLS

Type WK Control is identical to Type W Control except that it is equipped with IRC Knob Master Shaft for fitting to both knurled and flatted knobs used in TV sets. Type W Switches may be used on Type WK Controls. Bushing is 1/4" long. Shaft is 3" long from mounting face.
Net Each..... **75c**

IRC No.	Resist. Ohms	IRC No.	Resist. Ohms	IRC No.	Resist. Ohms
W-2	2	W-60	60	W-2000	2000
W-3	3	W-75	75	WK-2000	2000
W-5	5	W-100	100	WK-2500	2500
W-6	6	W-200	200	W-3000	3000
W-8	8	WK-250	250	WK-3000	3000
W-10	10	W-300	300	W-4000	4000
W-15	15	W-400	400	W-5000	5000
W-20	20	W-500	500	W-7500	7500
W-25	25	W-750	750	W-10000	10000
W-30	30	W-1000	1000	WK-10000	10000
W-40	40	WK-1000	1000		
W-50	50	WK-1500	1500		

SWITCHES FOR ABOVE CONTROLS

IRC Type 51—Single pole, single throw. Net Each..... **36c**
IRC Type 52—Double pole, single throw. Net Each..... **45c**
IRC Type 53—Single pole, double throw. Net Each..... **45c**
IRC Type 54—3 point switch. Net Each..... **45c**
IRC Type 55—4-point switch. Net Each..... **45c**
IRC Type 56—Special SPDT switch. (throws at clockwise position). Net Each..... **45c**
IRC Type 57—SPST switch with dummy lug. Net Each... **45c**

TELEVISION CENTERING CONTROLS

IRC No.	Resistance	Net Each
W50X25	50 ohms, center tapped	$1.11
W30X15	30 ohms, center tapped	
W20X10	20 ohms, center tapped	
W10X5	10 ohms, center tapped	

MULTISECTIONS FOR STANDARD DUALS

Complete control sections that can be added like a switch to any Q, PQ or RQ Control. Provide an endless variety of dual, triple and quadruple controls. Fit Type 76 switches. Net.. **75c**

IRC No.	Resis. Ohms	Taper	IRC No.	Resis. Ohms	Taper	IRC No.	Resis. Ohms	Taper
M11-103	500	A	M11-128	0.1 meg	A	M11-137	1.0 meg	A
M11-108	1M	A	M13-128	0.1 meg	C	M13-137	1.0 meg	C
M11-110	2M	A	M11-130	0.25 meg	A	M11-139	2.0 meg	A
M11-114	5M	A	M13-130	0.25 meg	C	M13-139	2.0 meg	C
M11-116	10M	A	M11-133	0.5 meg	A	M13-140	3.0 meg	C
M11-120	25M	A	M13-133	0.5 meg	C	M11-141	5.0 meg	A
M11-123	50M	A				M11-143	10.0 meg	A

NEW IRC CONCENTRIPAKS

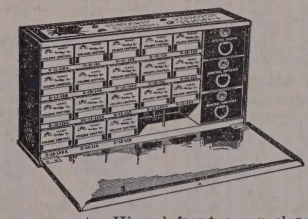
Concentripak For Philco-KC-1. Replaces any one of 13 Philco concentric duals plus 21 specific controls of 18 other popular makes. Packed in sturdy hinged top plastic stock box. Net Each..... **$10.20**

Concentripak For RCA—KC-2. Replaces any one of 14 RCA concentric dual controls plus 38 part number listings of 17 other manufacturers. Sturdy, hinged top plastic stock box. Net Each..... **$7.44**

Concentripak For Admiral—KC-3. Replaces any one of 14 Admiral concentric dual controls plus additional controls for Packard Bell, Sparton, and Stromberg-Carlson. Plastic stock box. Net Each..... **$7.80**

Concentrikit Stock Cabinet—Assortment No. 14. Provides coverage of 240 concentric dual listings, (equivalent of 149 different concentric duals). Contained in sturdy IRC four drawer all metal stock cabinet with 28 compartments. Includes complete data sheets. Net Each..... **$26.76**

TYPE Q CONTROL CABINET

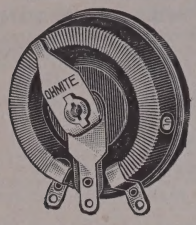


IRC Volume Control Cabinets are stocked with 18 new Type Q Controls, plus switches and special shafts. This stock will handle over 90% of all AM, FM and TV control replacements. Beautiful blue, yellow and silver metal cabinet gives a modern appearance to any shop. It measures 4 1/2" x 7 3/8" x 14 1/2" with individually marked compartments and 3 drawers for shafts, switches and spare parts. Hinged front cover closes tightly. Careful circuit analysis proves this stock to be basic for radio and television replacement. When purchased with the merchandise listed on the reverse side, no extra charge is made for metal cabinet.

Assortment No. 9—With New IRC Type Q Controls. Net Each..... **$18.54**

Ohmite Controls and Switches

ALL PORCELAIN VITREOUS ENAMELED RHEOSTATS



Dissipate heat rapidly: insulated shafts and bushings. Copper-graphite contacts. Ratings for "free air" use.

MODEL "H" 25 WATT

Diameter 1⅝" Depth behind panel 1⅜"

Ohmi. No.	Ohms Res.	Net Each	Ohmi. No.	Ohms Res.	Net Each
0140	1	$4.22	0152	125	$3.73
0141	2	3.73	0153	175	3.73
0142	3	3.73	0154	250	3.73
0143	6	3.73	0155	350	3.73
0144	8	3.73	0156	500	3.73
0145	10	3.73	0157	750	3.73
0146	15	3.73	0158	1000	4.22
0147	25	3.73	0159	1500	4.22
0148	35	3.73	0160	2500	4.22
0149	50	3.73	0161	3500	4.43
0150	75	3.73	0162	5000	4.43
0151	100	3.73			

MODEL "J" 50 WATT

Diameter 2⅝" Depth behind panel 1⅜"

0308	0.5	4.69	0321	150	4.22
0309	1	4.69	0322	225	4.22
0310	2	4.69	0323	300	4.22
0311	4	4.22	0324	500	4.22
0312	6	4.22	0325	800	4.43
0313	8	4.22	0326	1000	4.43
0314	12	4.22	0327	1600	4.43
0315	16	4.22	0328	2500	4.43
0316	22	4.22	0329	3500	4.69
0317	35	4.22	0330	5000	4.69
0318	50	4.22	0331	8000	4.69
0319	80	4.22	0332	10000	4.69
0320	125	4.22			

MODEL "G" 75 WATT

Diameter 2¾". Depth behind panel 1¾"

Ohmi. No.	Ohms Res.	Net Each	Ohmi. No.	Ohms Res.	Net Each
1100	0.5	$6.34	1112	200	$5.83
1101	1	6.34	1113	300	5.83
1102	2	6.34	1114	400	5.83
1103	3	6.34	1115	500	5.83
1104	5	5.83	1116	750	6.34
1105	7.5	5.83	1117	1000	6.34
1106	10	5.83	1118	1500	6.34
1107	16	5.83	1119	2000	6.34
1108	25	5.83	1120	2500	6.34
1109	50	5.83	1121	5000	6.77
1110	75	5.83	1122	7500	7.27
1111	100	5.83	1123	10000	7.27

MODEL "K" 100 WATT

Diameter 3⅛" Depth behind panel 1¾"

0440	.0.5	7.02	0452	200	6.57
0441	1	7.02	0453	300	6.57
0442	2	7.02	0454	400	6.57
0443	3	7.02	0455	500	6.57
0444	5	7.02	0456	750	6.57
0445	7.5	6.57	0457	1000	7.02
0446	10	6.57	0458	1500	7.02
0447	16	6.57	0459	2000	7.02
0448	25	6.57	0460	2500	7.02
0449	50	6.57	0461	5000	7.48
0450	75	6.57	0462	7500	7.97
0451	100	6.57	0463	10000	8.42

MODEL "L" 150 WATT

Diameter 4". Depth behind panel 2"

0524	0.5	8.90	0537	150	8.42
0525	1	8.90	0538	200	8.42
0526	2	8.90	0539	250	8.42
0527	3	8.90	0540	350	8.42
0528	5	8.90	0541	500	8.42
0529	7.5	8.90	0542	750	8.90
0530	10	8.42	0543	1250	8.90
0531	15	8.42	0544	1800	9.37
0532	25	8.42	0545	2250	9.37
0533	35	8.42	0546	3000	9.37
0534	50	8.42	0547	4500	9.82
0535	75	8.42	0548	7500	10.30
0536	100	8.42	0549	10000	11.23

MODEL "P" 225 WATT

Diameter 5". Depth behind panel, 2⅛".

Ohmi. No.	Ohms Res.	Net Each	Ohmi. No.	Ohms Res.	Net Each
1250	1	11.66	1261	100	11.66
1251	2	11.66	1262	150	11.66
1252	3	11.66	1263	200	11.66
1253	4	11.66	1264	300	11.66
1254	5	11.66	1265	400	11.66
1255	7.5	11.66	1266	700	11.66
1256	10	11.66	1267	900	11.66
1257	15	11.66	1268	1200	11.66
1258	25	11.66	1269	1500	11.66
1259	50	11.66	1270	1750	11.66
1260	75	11.66	1271	2500	11.66

MODEL "N" 300 WATT

Diameter 6". Depth behind panel 2⅜"

Ohmi. No.	Ohms Res.	Net Each	Ohmi. No.	Ohms Res.	Net Each
0650	1	12.64	0661	100	12.64
0651	2	12.64	0662	150	12.64
0652	3	12.64	0663	200	12.64
0653	4	12.64	0664	300	12.64
0654	5	12.64	0665	400	12.64
0655	7.5	12.64	0666	700	12.64
0656	10	12.64	0667	900	12.64
0657	15	12.64	0668	1200	12.64
0658	25	12.64	0669	1500	12.64
0659	50	12.64	0670	1750	12.64
0660	75	12.64	0671	2500	12.64

MODEL "R" 500 WATT

Diameter 8". Depth behind panel, 2⅛"

0849	1.0	18.27	0872	50	18.27
0850	1.5	18.27	0861	80	18.27
0851	2	18.27	0862	125	18.27
0852	2.5	18.27	0863	175	18.27
0853	3	18.27	0864	250	18.27
0854	4	18.27	0865	325	18.27
0855	5	18.27	0866	500	18.27
0856	8	18.27	0867	750	18.27
0857	12.5	18.27	0868	1000	18.27
0858	16	18.27	0869	1500	18.27
0859	25	18.27	0870	2000	18.27
0860	40	18.27	0871	2500	18.27

MODEL "T" 750 WATT

Diameter, 10". Depth behind panel, 3".

1300	1	25.78	1312	50	25.78
1301	1.5	25.78	1313	80	25.78
1302	2	25.78	1314	100	25.78
1303	2.5	25.78	1315	160	25.78
1304	3	25.78	1316	200	25.78
1305	4	25.78	1317	300	25.78
1306	5	25.78	1318	400	25.78
1307	8	25.78	1319	600	25.78
1308	10	25.78	1320	750	25.78
1309	12.5	25.78	1321	1200	25.78
1310	16	25.78	1322	1800	25.78
1311	25	25.78	1323	2500	25.78

MODEL "U" 1000 WATT

Diameter, 12". Depth behind panel, 3".

1450	1	30.13	1462	50	30.13
1451	1.5	30.13	1463	75	30.13
1452	2	30.13	1464	100	30.13
1453	2.5	30.13	1465	175	30.13
1454	3	30.13	1466	225	30.13
1455	4	30.13	1467	300	30.13
1456	5	30.13	1468	400	30.13
1457	8	30.13	1469	500	30.13
1458	10	30.13	1470	750	30.13
1459	12.5	30.13	1471	1000	30.13
1460	16	30.13	1472	1500	30.13
1461	25	30.13	1473	2500	30.13

POWER TAP SWITCHES

Single pole, multi-position switch with all-ceramic insulation, silver-to-silver contacts and "slow break" action designed especially for AC. Switch shaft is electrically "dead".

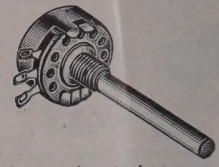
Dimensions:

Model 111-AC rating 10 amperes, 150 volts. Diameter 1¾", depth behind panel 1⅛", shaft diameter is ¼".

Model 212—AC rating is 15 amperes, 150 volts. Diameter 2¼", shaft diameter ¼". Mounts in up to ¼" panel by means of a ⅜"-32 threaded bushing and hex. nut. All units supplied without knob.

292-54A

TYPE AB COMPOSITION POTENTIOMETER



Type AB potentiometer is an exceptionally high quality unit designed especially for industrial, laboratory, radio service and other uses where reliability is particularly important. Because the resistor element is molded, the unit has an exceptionally large safety factor. The power rating of two watts is unusual for a unit of such small size. The unit has a very low noise level and low voltage coefficient. It will pass the Army-Navy 200 hour salt spray test. Size: 1⅛" diameter; extends ⅝" behind panel; shaft length 2" including ¾" bushing. SPST switch to be attached to back of control can be supplied extra. This switch is off at the extreme counterclockwise shaft position. It is rated 2 amperes at 125 volts and is Underwriters' approved. Also rated 10 amperes at 10 volts.

Type CU—50 ohms thru 5.0 megs, stock resistances only. Net Each.. **$1.95**

Type CA & CB—Stock values only. Net Each..... **$2.25**

Type CLU—50 ohms through 5.0 megohms. Linear values only. 1⅛" diameter; extends ⅝" behind panel; shaft length ⅝" including slotted bushing. For ⅛" maximum panel. Net Each..... **$2.55**

Type CCU Dual Potentiometer—Available in these values: 10,000 (CCU-1031), 25,000 (CCU-2531), 50,000 (CCU-5031) and 100,000 ohms (CCU-1041); .25 (CCU-2541), .5 (CCU-5041) and 1 meg (CCU-1052). Dimensions same as Type CU except add ⅝" to extension behind panel. Net Each..... **$5.85**

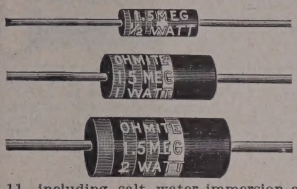
Type CS-1—Switch for AB pot. Net..... **$0.66**

Total Ohms, ± 10%. (*± 20%)	Resistance Rotation Characteristics (Taper): Locking Shaft Stock No. Prefix CLU-	Linear Stock No. Prefix CU-	Clockwise Log. Stock No. Prefix CA-	Counter Clock. Log. Stock No. Prefix CB-
50	5001	5001	.....	.....
100	1011	1011	.....	.....
250	2511	2511	.....	.....
500	5011	5011	.....	.....
1000	1021	1021	.....	.....
2500	2521	2521	.....	.....
5000	5021	5021	.....	.....
10,000	1031	1031	.....	1031
25,000	2531	2531	.....	2531
50,000	5031	5031	.....	5031
.10 Meg.	1041	1041	1041	.....
.25 Meg.	2541	2541	2541	.....
.5 Meg.	5041	5041	5041	.....
*1.0 Meg.	1052	1052	1052	.....
*2.5 Meg.	2552	2552	2552	.....
*5.0 Meg.	5052	5052	.....	.....

Ohmite No.	Total Rotation°	No. Taps	Net Each
111-11	300	11	$2.80
111-10	270	10	2.72
111-9	240	9	2.72
111-8	210	8	2.62
111-7	180	7	2.62
111-6	150	6	2.51
111-5	120	5	2.51
111-4	90	4	2.44
111-3	60	3	2.44
111-2	30	2	2.44
212-12	330	12	7.02
212-11	300	11	7.02
212-10	270	10	6.79
212-9	240	9	6.79
212-8	210	8	6.57
212-7	180	7	6.57
212-6	150	6	6.32
212-5	120	5	6.32
212-4	90	4	6.08
212-3	60	3	6.08
212-2	30	2	6.08

Ohmite Resistors and Kits

"LITTLE DEVIL" MOLDED COMPOSITION RESISTORS



Ohmite "Little Devils" are full ½ watt, 1 watt and 2 watt resistors . . . and can be used at their full wattage ratings at 70° C (158° F) ambient temperature. They dissipate heat rapidly . . . have low noise level and low voltage coefficient. "Little Devils" meet test requirements for the best quality characteristics of JAN-R-11, including salt water immersion and high humidity tests.

They are available from stock in ½, 1 and 2 watt sizes with ±10% or ±5% tolerance. The standard RTMA values, 10 ohms to 22 megohms can be furnished. In the 1 watt size ±10% tolerance, values as low as 2.7 ohms are available from stock. All resistors have 1½" tinned wire leads.

Ratings for maximum continuous RMS voltage drop are high: 350 volts for the ½ watt unit—500 volts for the 1 watt unit—1000 volts for the 2 watt unit. Units have high insulation breakdown voltage.

STOCK RESISTORS

Figures in large, **bold type** are ±10% RTMA values. All values (except those marked *) available in ±5% tolerance.

Ohms	Ohms	Ohms	Ohms	Ohms	Megs	Megs	Megs
2.7*	**39**	300	**2200**	16000	**0.1**	0.75	**5.6**
3.3*	43	**330**	2400	**18000**	0.11	**0.82**	6.2
3.9*	**47**	360	**2700**	20000	**0.12**	0.91	**6.8**
4.7*	51	**390**	3000	**22000**	0.13	**1.0**	7.5
5.6*	**56**	430	**3300**	24000	**0.15**	1.1	**8.2**
6.8*	62	**470**	3600	**27000**	0.16	**1.2**	9.1
8.2*	**68**	510	**3900**	30000	**0.18**	1.3	**10.0**
10	75	**560**	4300	**33000**	0.20	**1.5**	11.0
11	**82**	620	**4700**	36000	**0.22**	1.6	**12.0**
12	91	**680**	5100	**39000**	0.24	**1.8**	13.0
13	**100**	750	**5600**	43000	**0.27**	2.0	**15.0**
15	110	**820**	6200	**47000**	0.30	**2.2**	16.0
16	**120**	910	**6800**	51000	**0.33**	2.4	**18.0**
18	130	**1000**	7500	**56000**	0.36	**2.7**	20.0
20	**150**	1100	**8200**	62000	**0.39**	3.0	**22.0**
22	160	**1200**	9100	**68000**	0.43	**3.3**	.....
24	**180**	1300	**10000**	75000	**0.47**	3.6	.....
27	200	**1500**	11000	**82000**	0.51	**3.9**	.....
30	**220**	1600	**12000**	91000	**0.56**	4.3	.....
33	240	**1800**	13000	.....	0.62	**4.7**	.....
36	**270**	2000	**15000**	.....	**0.68**	5.1	.....

*1 watt size only, ±10% tolerance.

SPECIFICATIONS, PRICING

Watts	Tol.	Size, Ins. Lgth.	Size, Ins. Diam	Resistance Range	Net Each	Net Each Lot of 100
½	±5%	3/8	9/64	10 ohms to	20c	12c
½	±10%	3/8	9/64	22 megohms	10c	6c
1	±5%	9/16	7/32	2.7 ohms to	30c	18c
1	±10%	9/16	7/32	22 megohms	15c	9c
2	±5%	11/16	5/16	10 ohms to	40c	24c
2	±10%	11/16	5/16	22 megohms	20c	12c

OHMITE LITTLE DEVIL RESISTOR ASSORTMENTS

Eleven different assortments contain ratings, values and tolerances for every service and industrial need. Each assortment is packed in an attractive, lustrous black and maroon solid-molded plastic cabinet, specially designed for quick, easy resistor selection. Each cabinet has five drawers, with eight compartments to each drawer. Single cabinets are 9" long, 4¾" high, and 5¼" deep. Service assortments use one cabinet; ±10% Industrial assortments use two cabinets firmly fastened together; and the ±5% Industrial assortments consist of four cabinets. Resistance and Wattage marked on every Little Devil resistor.

RADIO SERVICE ASSORTMENTS

±10% Tolerance, 40 Resistance Values Net Each

Ohmite No. CAB-2—Contains 125 1 watt resistors . . . **18.75**
Ohmite No. CAB-3—Contains 125 2 watt resistors . . . **25.00**
Ohmite No. CAB-10—Contains 150 ½ watt resistors . . **15.00**

WE CARRY A COMPLETE INVENTORY OF RADIO, TELEVISION AND SPECIAL PURPOSE RESISTORS. DO NOT HESITATE TO INQUIRE ABOUT UNLISTED OR NEW TYPES.

"BROWN DEVIL" FIXED RESISTORS

Wire-wound vitreous enameled units which may be conveniently mounted by their tinned wire leads. The vitreous coating provides the best protection against humidity, fumes and mechanical damage. Because of their single-layer winding, the generated heat is rapidly conducted to the surface through the vitreous enamel covering—the best conductor of heat. Wire temperature is kept much lower.

5 WATT BROWN DEVILS

Core: 1" x 5/16". 1½" tinned wire leads.

Ohms	Maximum Amps	Maximum Volts	Ohms	Maximum Amps	Maximum Volts	Ohms	Maximum Amps	Maximum Volts
1.0	2.236	2.2	**125**	.200	25	**1250**	.063	79
1.5	1.82	2.7	**150**	.182	27	**1500**	.057	86
2.0	1.58	3.2	**200**	.158	32	**1750**	.053	92
3.0	1.29	3.9	**225**	.149	34	**2000**	.049	98
4.0	1.12	4.5	**250**	.141	35	**2250**	.046	103
5.0	1.000	5.0	**300**	.129	39	**2500**	.044	107
7.5	.818	6.1	**350**	.120	42	**3000**	.039	117
10	.700	7.0	**400**	.112	45	**3500**	.036	126
12	.645	7.8	**450**	.105	47	**4000**	.033	135
15	.575	8.7	**500**	.100	50	**4500**	.031	140
20	.500	10	**600**	.091	55	**5000**	.029	146
25	.447	11	**700**	.084	59	**6000**	.026	157
30	.408	12	**750**	.081	62	**7000**	.024	163
35	.378	13	**800**	.079	63	**7500**	.022	172
40	.353	14	**900**	.074	67	**8000**	.021	176
50	.316	16	**1000**	.070	71	**9000**	.019	184
75	.258	19	**1100**	.067	75	**10M**	.018	188
100	.224	22	**1200**	.064	78	.....	.....	.....

1 to 1,000 ohms. Net Each **40c**
1,100 to 5,000 ohms. Net Each **43c**
6,000 to 10,000 ohms. Net Each **47c**

10 WATT BROWN DEVILS

Cores: 1¾" x 5/16". 1½" tinned wire leads.

Ohms	Maximum Amps	Maximum Volts	Ohms	Maximum Amps	Maximum Volts	Ohms	Maximum Amps	Maximum Volts
0.4	5.000	2.0	**250**	.200	50	**6000**	.038	230
1.0	3.160	3.1	**300**	.182	54	**7000**	.034	237
1.2	2.820	3.5	**350**	.169	59	**7500**	.032	243
1.3	2.740	3.6	**400**	.158	63	**8000**	.031	247
1.5	2.580	3.8	**450**	.149	67	**8500**	.029	250
2.0	2.235	4.4	**500**	.141	70	**10M**	.026	260
3.0	1.825	5.4	**600**	.129	77	**11M**	.024	265
4.0	1.580	6.3	**700**	.119	83	**12M**	.023	273
5.0	1.414	7.0	**750**	.115	86	**12.5M**	.022	275
7.5	1.155	8.6	**800**	.111	88	**13.5M**	.021	283
10	1.000	10	**900**	.105	94	**14.3M**	.020	287
12	.910	11	**1000**	.100	100	**15M**	.019	290
15	.816	12	**1100**	.095	104	**16M**	.018	295
20	.707	14	**1200**	.091	109	**17.5M**	.017	310
25	.632	15	**1250**	.089	111	**18M**	.017	317
30	.575	17	**1500**	.079	119	**20M**	.016	320
35	.535	18	**1750**	.074	130	**22.5M**	.015	338
40	.500	20	**2000**	.069	138	**25M**	.014	355
50	.447	22	**2250**	.064	144	**30M**	.012	356
75	.365	27	**2500**	.063	154	**35M**	.010	357
100	.316	31	**3000**	.056	169	**40M**	.009	358
125	.283	35	**3500**	.051	179	**45M**	.008	359
150	.258	38	**4000**	.047	190	**50M**	.007	360
200	.223	44	**4500**	.045	205	.....	.....	.....
225	.217	47	**5000**	.043	215	.....	.....	.....

Range	Net Ea.	Range	Net Ea.
.4 to 1,000 ohms	**45c**	11,000 to 20,000 ohms	**62c**
1,100 to 5,000 ohms	**48c**	22,500 and 25,000 ohms	**65c**
6,000 to10,000 ohms	**55c**	30,000 to 50,000 ohms	**73c**

20 WATT BROWN DEVILS

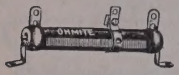
Core: 1¾" x 5/16". 1½" tinned wire leads.

Ohms	Maximum Amps	Maximum Volts	Ohms	Maximum Amps	Maximum Volts	Ohms	Maximum Amps	Maximum Volts
0.4	7.070	2.8	**1000**	.141	141	**12.5M**	.035	445
0.6	5.760	3.4	**1200**	.129	155	**15M**	.030	455
0.8	5.000	4.0	**1250**	.126	158	**20M**	.024	475
5.0	2.000	10	**1500**	.115	173	**25M**	.020	495
10	1.414	14	**1750**	.107	187	**30M**	.017	515
25	.894	22	**1850**	.104	192	**35M**	.015	535
50	.632	31	**2000**	.100	200	**40M**	.014	560
75	.516	38	**2250**	.094	212	**45M**	.013	580
100	.447	44	**2400**	.091	219	**50M**	.012	600
150	.365	54	**2500**	.089	223	**55M**	.011	603
200	.316	63	**2750**	.085	234	**60M**	.010	606
250	.283	70	**3000**	.081	245	**65M**	.009	609
300	.258	77	**3500**	.075	264	**70M**	.009	612
350	.239	83	**4000**	.070	283	**75M**	.008	615
400	.223	89	**4500**	.066	300	**80M**	.008	618
500	.200	100	**5000**	.063	316	**85M**	.007	621
650	.175	114	**6000**	.057	346	**90M**	.007	625
700	.169	118	**7000**	.053	374	**95M**	.007	629
750	.163	122	**7500**	.051	387	**100M**	.006	633
800	.158	126	**8000**	.050	400	.....	.....	.....
850	.153	130	**10M**	.043	436	.....	.....	.....

Range	Net Ea.	Range	Net Ea.
.4 to 1,000 ohms	**57c**	25,000 to 40,000 ohms	**$ .82**
1,200 to 5,000 ohms	**58c**	45,000 to 60,000 ohms	**.95**
6,000 to 10,000 ohms	**67c**	65,000 to 80,000 ohms	**1.10**
12,500 to 20,000 ohms	**72c**	85,000 to 100M ohms	**1.27**

Ohmite Dividohm and Fixed Resistors

"DIVIDOHM" VITREOUS ENAMELED RESISTORS



"Dividohm" resistors are vitreous enameled or ceramic cores with a narrow strip of the wire turns exposed to form a consurface for the embossed contact of the adjustable lug. A patented percentage of resistance scale stamped on the units, makes it easy to set the lugs at the desired value. 1 screwdriver adjust lug supplied. **10 Watt Size**—Core: 1¾" x 5/16". With No. 5 brackets. Mounting centers, 2¼". **25 Watt Size**—Core: 2" x 5/16". With No. 9 brackets. Mounting centers 2¾". **50 Watt Size**—Core: 4" x 5/16". With No. 9 brackets. Mounting centers 4¾". **75 Watt Size**—Core: 6" x 5/16". With No. 9 brackets. Mounting centers, 6¾". **100 Watt Size**—Core: 6½" x ¾". With No. 12 brackets. Mounting centers, 7⅝". **160 Watt Size**—Core: 8½" x 1⅛". With No. 18 brackets. Mounting centers, 9⅝". **200 Watt Size**—Core: 10½" x 1⅛". With No. 18 brackets. Mounting centers, 11⅜".

10 WATT DIVIDOHMS

Ohmite No.	Ohms	Net Each	Ohmite No.	Ohms	Net Each	Ohmite No.	Ohms	Net Each
1001	1	88c	1015	250	88c	1029	3000	92c
1002	2	88c	1016	300	88c	1030	3500	92c
1003	3	88c	1017	350	88c	1031	4000	92c
1004	5	88c	1018	400	88c	1032	4500	92c
1005	7.5	88c	1019	500	88c	1033	5000	92c
1006	10	88c	1020	600	88c	1034	6000	98c
1007	15	88c	1021	750	88c	1035	7000	98c
1008	20	88c	1022	800	88c	1036	7500	98c
1009	25	88c	1023	1000	88c	1037	8000	98c
1010	50	88c	1024	1250	92c	1038	8500	98c
1011	75	88c	1025	1500	92c	1039	9000	98c
1012	100	88c	1026	2000	92c	1040	10M	98c
1013	150	88c	1027	2250	92c	.....	.....	....
1014	200	88c	1028	2500	92c	.....	.....	....

25 WATT DIVIDOHMS AND FIXED RESISTORS

Ohms	Dividohm No.	Dividohm Net	Fixed No.	Fixed Net	Ohms	Dividohm No.	Dividohm Net	Fixed No.	Fixed Net
1	0360	$1.12	0200J	$0.58	2500	0378	$1.13	0208	$0.62
2	0360B	1.12	0220K	.58	3000	0379	1.13	0209	.62
3	0361	1.12	0200L	.58	3500	0380	1.13	0210	.62
4	.....	.....	0200N	.58	4000	0381	1.13	0211	.62
5	0362	1.12	0200A	.58	4500	0381B	1.13	.....	....
7.5	0362B	1.12	.....	.....	5000	0382	1.13	0212	.62
10	0363	1.12	0200B	.58	6000	0383	1.22	0213	.68
15	0364	1.12	0200R	.58	7000	0383B	1.22	.....	....
20	0364B	1.12	.....	.....	7200	0383C	1.22	.....	....
25	0365	1.12	0200C	.58	7500	0384	1.22	0214	.68
50	0366	1.12	0200D	.58	8000	0384B	1.22	.....	....
75	0367	1.12	0200E	.58	9000	0384C	1.22	.....	....
100	0368	1.12	0200F	.58	10M	0385	1.22	0215	.68
150	0369	1.12	0200G	.58	12M	0386	1.25	0216	.71
200	0370	1.12	0200H	.58	15M	0387	1.25	0217	.71
250	0371	1.12	0201	.58	20M	0388	1.25	0218	.71
300	0371B	1.12	.....	.....	25M	0389	1.37	0219	.82
400	0371C	1.12	.....	.....	30M	.....	.....	0220	.82
500	0372	1.12	0202	.58	35M	.....	.....	0221	.82
750	0373	1.12	0203	.58	40M	.....	.....	0222	.82
800	0374	1.12	0204	.58	50M	.....	.....	0224	.94
1000	0375	1.12	0205	.58	60M	.....	.....	0225	.94
1250	0375B	1.13	.....	.....	70M	.....	.....	0226	1.10
1500	0376	1.13	0206	.62	80M	.....	.....	0227	1.10
2000	0377	1.13	0207	.62	100M	.....	.....	0229	1.27
2250	0377B	1.13	.....	.....	.....	.....	.....	.....	....

50 WATT DIVIDOHMS AND FIXED RESISTORS

Ohms	Dividohm No.	Dividohm Net	Fixed No.	Fixed Net	Ohms	Dividohm No.	Dividohm Net	Fixed No.	Fixed Net
1	0560A	$1.80	0400J	$1.35	4500	0577B	$1.48	.....	....
2	0560B	1.42	0400K	.98	5000	0578	1.48	0411	$1.05
3	0560C	1.42	0400L	.98	6000	0578B	1.58	.....	....
4	0560D	1.42	0400N	.98	7000	0578C	1.58	.....	....
5	0560	1.42	0400A	.98	7200	0578D	1.58	.....	....
10	0561	1.42	0400B	.98	7500	0579	1.58	0412	1.15
25	0562	1.42	0400C	.98	8000	0580	1.58	0413	1.15
50	0563	1.42	0400D	.98	9000	0580B	1.58	.....	....
75	0564	1.42	0400E	.98	10M	0581	1.58	0414	1.15
100	0565	1.42	0400F	.98	12M	0582	1.70	0415	1.25
150	0566	1.42	0400G	.98	15M	0583	1.70	0416	1.25
200	0567	1.42	0400H	.98	20M	0584	1.70	0417	1.25
250	0568	1.42	0401	.98	25M	0585	1.85	0418	1.40
300	0568B	1.42	.....	.....	30M	0586	1.85	.....	....
400	0568C	1.42	.....	.....	35M	.....	.....	0419	1.40
500	0569	1.42	0402	.98	40M	0587	1.85	.....	....
750	0570	1.42	0403	.98	50M	0588	1.98	0420	1.54
800	0571	1.42	0404	.98	60M	0589	1.98	.....	....
1000	0572	1.42	0405	.98	75M	.....	.....	0421	1.75
1250	0572B	1.48	.....	.....	80M	0590	2.20	.....	....
1500	0573	1.48	0406	1.05	100M	0591	2.35	0422	1.92
2000	0574	1.48	0407	1.05	125M	.....	.....	0423	2.02
2250	0574B	1.48	.....	.....	150M	.....	.....	0424	2.10
2500	0575	1.48	0408	1.05	175M	.....	.....	0425	2.18
3000	0576	1.48	0409	1.05	200M	.....	.....	0426	2.27
3500	0576B	1.48	.....	.....	225M	.....	.....	0427	2.53
4000	0577	1.48	0410	1.05	250M	.....	.....	0428	2.53

ADJUSTABLE LUGS, SILVER CONTACT BUTTONS

Core Diam. Inches	Screwdriver Type Ohmite No.	Screwdriver Type Net Each	Bakelite Knob Type Ohmite No.	Bakelite Knob Type Net Each
5/16	2161	23c	.....	....
9/16	2164	23c	2165	28c
¾	2166	28c	2167	38c
1⅛	2170	28c	2171	38c

VITREOUS ENAMELED FIXED RESISTORS

Lug type, wire-wound or ceramic cores Wattage ratings are for use in free air. **25 Watt Size**—For resistance values to 10,000 ohms. Core: 2" x 5/16". With No. 9 brackets. Mounting centers, 2¾". **50 Watt Size**—For resistance values up to 15,000 ohms. Core: 4" x 5/16". With No. 9 brackets. Mounting centers, 4¾". **100 Watt Size**—For resistance values to 20,000 ohms. Core: 6½" x ¾". With No. 12 brackets. Mounting centers, 7⅝". **160 Watt Size**—For resistance values to 25,000 ohms. Core: 8½" x 1⅛". With No. 18 brackets. Mounting centers, 9⅝". **200 Watt Size**—For resistance values to 30,000 ohms. Core: 10½" x 1⅛". Mounting centers, 11⅜".

75 WATT DIVIDOHMS

Ohmite No.	Ohms	Net Each	Ohmite No.	Ohms	Net Each	Ohmite No.	Ohms	Net Each
0769A	1	$2.12	0777B	800	$1.65	0784B	8000	$1.80
0769B	2	2.12	0778	1000	1.65	0784C	9000	1.80
0769C	3	1.65	0778B	1250	1.70	0785	10M	1.80
0769D	4	1.65	0779	1500	1.70	0785B	12M	1.92
0769	5	1.65	0780	2000	1.70	0786	15M	1.92
0770	10	1.65	0780B	2250	1.70	0787	20M	1.92
0771	15	1.65	0781	2500	1.70	0788	25M	2.12
0772	25	1.65	0781B	3000	1.70	0789	30M	2.12
0773	50	1.65	0782	3500	1.70	0790	35M	2.12
0774	100	1.65	0782B	4000	1.70	0791	40M	2.12
0774B	200	1.65	0782C	4500	1.70	0792	45M	2.17
0775	250	1.65	0783	5000	1.70	0793	50M	2.17
0775B	300	1.65	0783B	6000	1.80	0794	60M	2.17
0775C	400	1.65	0783C	7000	1.80	0795	80M	2.38
0776	500	1.65	0783D	7200	1.80	0796	100M	2.60
0777	750	1.65	0784	7500	1.80	.....	.....	....

100 WATT DIVIDOHMS AND FIXED RESISTORS

Ohms	Dividohm No.	Dividohm Net	Fixed No.	Fixed Net	Ohms	Dividohm No.	Dividohm Net	Fixed No.	Fixed Net
1	0956A	$2.72	0600C	$2.02	1500	0962B	$2.20	0610	$1.52
2	0956B	2.72	0600D	2.02	2000	.....	.....	0611	1.52
3	0956C	2.72	0600E	2.02	2500	0963	2.20	0612	1.52
4	0956D	2.15	0600F	1.45	3000	.....	.....	0613	1.52
5	0956	2.15	0600A	1.45	5000	0964	2.20	0614	1.52
10	0957	2.15	0600B	1.45	7500	.....	.....	0615	1.62
25	0958	2.15	0601	1.45	10M	0965	2.32	0616	1.62
50	0959	2.15	0602	1.45	15M	0966	2.47	0617	1.78
75	.....	.....	0603	1.45	20M	0967	2.47	0618	1.78
100	0960	2.15	0604	1.45	25M	0968	2.62	0619	1.92
125	.....	.....	0604B	1.45	30M	0969	2.62	0620	1.92
150	.....	.....	0605	1.45	40M	0970	2.62	0621	1.92
250	0960B	2.15	0606	1.45	50M	0971	2.72	0622	2.02
500	0961	2.15	0607	1.45	60M	.....	.....	0623	2.02
750	.....	.....	0608	1.45	75M	0972	2.85	0624	2.12
1000	0962	2.15	0609	1.45	100M	0973	2.97	0625	2.28

160 WATT DIVIDOHMS AND FIXED RESISTORS

Ohms	Dividohm No.	Dividohm Net	Fixed No.	Fixed Net	Ohms	Dividohm No.	Dividohm Net	Fixed No.	Fixed Net
1	1156A	$3.20	0700C	$2.50	1500	1162B	$2.51	0710	$1.82
2	1156B	3.20	0700D	2.50	2000	.....	.....	0711	1.82
3	1156C	3.20	0700E	2.50	2500	1163	2.51	0712	1.82
4	1156D	3.20	0700F	2.50	3000	.....	.....	0713	1.82
5	1156	3.20	0700A	2.50	5000	1164	2.51	0714	1.82
10	1157	2.48	0700B	1.79	7500	.....	.....	0715	1.98
25	1158	2.48	0701	1.79	10M	1165	2.66	0716	1.98
50	1159	2.48	0702	1.79	15M	1166	2.81	0717	2.12
75	.....	.....	0703	1.79	20M	1167	2.81	0718	2.12
100	1160	2.48	0704	1.79	25M	1168	2.88	0719	2.18
125	.....	.....	0704B	1.79	30M	1169	2.88	0720	2.18
150	.....	.....	0705	1.79	40M	1170	2.88	0721	2.18
250	1160B	2.48	0706	1.79	50M	1171	2.96	0722	2.26
500	1161	2.48	0707	1.79	60M	.....	.....	0723	2.26
750	.....	.....	0708	1.79	75M	1172	3.10	0724	2.42
1000	1162	2.48	0709	1.79	100M	1173	3.26	0725	2.56

200 WATT DIVIDOHMS AND FIXED RESISTORS

Ohms	Dividohm No.	Dividohm Net	Fixed No.	Fixed Net	Ohms	Dividohm No.	Dividohm Net	Fixed No.	Fixed Net
1	1356A	$3.40	0900C	$2.72	2000	.....	.....	0911	$1.98
2	1356B	3.40	0900D	2.72	2500	1363	$2.67	0912	1.98
3	1356C	3.40	0900E	2.72	3000	.....	.....	0913	1.98
4	1356D	3.40	0900F	2.72	5000	1364	2.67	0914	1.98
5	1356	3.40	0900A	2.72	7500	.....	.....	0915	2.12
10	1357	2.62	0900B	1.93	10M	1365	2.82	0916	2.12
25	1358	2.62	0901	1.93	15M	1366	2.95	0917	2.26
50	1359	2.62	0902	1.93	20M	1367	2.95	0918	2.26
75	.....	.....	0903	1.93	25M	1368	3.02	0919	2.34
100	1360	2.62	0904	1.93	30M	1369	3.02	0920	2.34
150	.....	.....	0905	1.93	40M	1370	3.02	0921	2.34
250	1360B	2.62	0906	1.93	50M	1371	3.10	0922	2.42
500	1361	2.62	0907	1.93	60M	.....	.....	0923	2.42
750	.....	.....	0908	1.93	75M	1372	3.25	0924	2.55
1000	1362	2.62	0909	1.93	100M	1373	3.40	0925	2.72
1500	1362B	2.67	0910	1.98	.....	.....	.....	.....	....

STANDARD ADJUSTABLE LUGS

Core Diam. Inches	Screwdriver Type Ohmite No.	Screwdriver Type Net Each	Bakelite Knob Type Ohmite No.	Bakelite Knob Type Net Each
5/16	1058	15c	....	....
9/16	0358	15c	0359	22c
¾	1958	25c	1959	28c
1⅛	2158	25c	2159	28c

Wire-Wound Resistors and Chokes

MALLORY WIRE-WOUND RESISTORS

FIXED TYPE — ADJUSTABLE TYPE

Ohms	5 Watt HHJ Net Each	10 Watt 1HJ Net Each	20 Watt 2HJ Net Each	50 Watt 5HJ Net Each	100 Watt 10HJ Net Each	200 Watt 20HJ Net Each	10 Watt 1AV Net Each	25 Watt 2AV Net Each	50 Watt 5AV Net Each	80 Watt 8AV Net Each	100 Watt 10AV Net Each	200 Watt 20AV Net Each
1								$1.10				
2							88c					
3								1.10				
4	40c	45c										
5			$0.57					1.10	$1.42			
7.5							88c					
10			.57	$1.05				1.10	1.42	$1.62		
12												
15			.57				.88	1.10		1.62		
20							88c					
25			.57	1.05	$1.49	$1.97		1.10	1.42	1.62		
30												
35												
40												
50	40c	45c	.57	1.05	1.49				1.42	1.62	$2.13	$2.62
75			.57		1.49	1.97	88c	1.10	1.42			
100			.57	1.05	1.49				1.42	1.62	2.13	2.62
125												
150			.57		1.49		88c	1.10	1.42			
200			.57					1.10	1.42			
250			.57	1.05	1.49	1.97		1.10	1.42	1.62		
300			.57						1.42	1.62		
350							88c					
400			.57					1.10	1.42	1.62		
500			.57	1.05	1.49	1.97			1.42	1.62	2.13	2.62
600	40c	45c										
700												
750			.57	1.05	1.49	1.97	88c	1.10	1.42	1.62		
800												
900												
1,000			.57	1.05	1.49	1.97	.88	1.10	1.42	1.62	2.13	2.62
1,200												
1,250							92c	1.13				
1,500				1.05	1.52	2.00			1.48	1.70		2.67
1,750												
2,000				1.05	1.52	2.00		1.13	1.48	1.70	2.20	2.67
2,250	45c	48c	58c									
2,500				1.05	1.52	2.00			1.48	1.70	2.20	2.67
3,000						2.00	92c	1.13	1.48		2.20	
3,500										1.70		
4,000									1.48		2.20	
4,500												
5,000				1.05	1.52	2.00		1.13	1.48	1.70	2.20	2.67
6,000			.67					1.22				
7,000												
7,500		55c	.67	1.15	1.62	2.12	98c	1.22	1.58	1.78	2.32	
8,000												
8,500												
9,000												
10,000			.67	1.15	1.62	2.12		1.22	1.58	1.78	2.32	2.82
12,000								1.25				
12,500		62c	72c	1.27								
15,000					1.78			1.25	1.70	1.92	2.47	
20,000					1.78	2.25		1.25	1.70	1.92	2.47	2.95
25,000			.82	1.40	1.96			1.37	1.85	2.08	2.62	3.02
30,000			.82	1.40	1.96	2.34			1.85	2.08	2.62	3.02
35,000		67c	.82								2.62	
40,000			.82	1.40	1.96	2.34			1.85	2.08	2.62	
50,000			.90	1.55	2.02	2.42			1.99	2.13	2.74	3.10
75,000			1.05	1.75	2.15	2.55				2.34	2.85	3.25
100,000			1.05	1.92	2.28	2.72				2.58		

BUD CHOKES

LATTICE WOUND R-F CHOKES

Wound from silk covered enameled copper wire on a white ceramic bobbin. Leads terminated with two convenient soldering lugs. Will take a 6-32 screw through the center of the form. Thoroughly impregnated against moisture. Base diameter, 1 1/16"; 1 5/8" between ends of leads.

Bud No.	Induct. Mh.	DC Ohms	Current Ma.	Height In.	Net Each
CH-1212	2.5	28	125	11/16	$0.44
CH-1213	3.4	36	125	11/16	.55
CH-1214	5.5	46	125	11/16	.55
CH-1215	8	60	125	11/16	.66
CH-1216	10	65	125	11/16	.72
CH-1217	16	84	125	11/16	.75
CH-1218	30	190	100	15/16	.85
CH-1219	60	279	90	15/16	.96
CH-1220	80	332	80	15/16	1.00

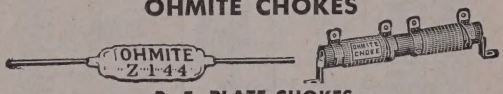
TRANSMITTING CHOKES

Consists of five graduated pies continuously wound. Pies are not resonant on an amateur band. Distributed capacity kept at a minimum. Each choke is wound on 7/16" diameter steatite rod, has connection lugs and a mounting foot.

All chokes have a heavy ceramic coating which prevents moisture absorption and enables them to withstand momentary overloads without collapsing between the individual pies.

Bud No.	Ind. Mh.	Amp.	DC Ohms	Net Each
CH-568	2.2	1.	5	$1.98
CH-569	4.3	.6	12	1.80

OHMITE CHOKES



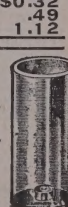
R. F. PLATE CHOKES

High frequency chokes, single-layer wound on low power factor steatite or plastic core—insulated and protected by moisture-proof coating. The single layer winding is designed to avoid adverse harmonic effects and also prevents breakdown from high RF potentials. Non-magnetic mounting brackets are furnished with largest size, type Z-7. Used in diathermy and therapeutic equipment as well as in radio transmitters.

Ohmite No.	Freq. Range, MC.	Micro-henries	Core Dim.	Net Each
Z-460	320-520	0.20	1/2" x 5/16"	
Z-235	160-350	0.84	3/4" x 3/16"	23c
Z-144	80-200	1.8	3/4" x 3/16"	
Z-50	35-110	7.0	7/8" x 9/32"	
Z-28	20-60	21.0	1 3/4" x 5/16"	$0.32
Z-14	7-35	44.0	2" x 7/16"	.49
Z-7	3-20	84.0	6" x 9/16"	1.12

AMPHENOL

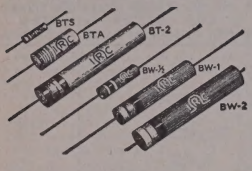
POLYSTYRENE COIL FORMS



Amph. No.	Description	Net Each
24-4P	4 pin tube base. 1 1/4" O. D., 2 1/4" L.	24c
24-5P	5 pin tube base. 1 1/4" O. D., 2 1/4" L.	24c
24-6P	6 pin tube base. 1 1/4" O. D., 2 1/4" L.	24c
24-6H	6 pin miniature. 3/4" O. D., 1 5/16" L.	24c
24	Center hole for bolt. 3/4" OD., 1 5/16" L.	9c

Quality Resistors

IRC INSULATED CARBON AND WIREWOUND RESISTORS



CARBON RESISTORS

Type	Watt	Range of Values	Size, Inches	5% Tol. Net Each	5% Tol. Lots of 100 Net Each	10% Tol. Net Each	10% Tol. Lots of 100 Net Each
BTR	½	82 ohms-22 megs	13/64 x 5/16	23c	14c	12c	7c
BTS	½	82 ohms-22 megs	13/64 x 1/8	23c	14c	12c	7c
BTA	1	100 ohms-22 megs	33/64 x ¼	35c	21c	18c	11c
BTB	2	330 ohms-22 megs	1¼ x ¼	45c	27c	23c	14c

WIRE WOUND RESISTORS

BW-½	½	0.27-820 ohms	5/8 x 3/16	23c	14c	12c	7c
BW-1	1	0.47-4700 ohms	1¼ x ¼	35c	21c	18c	11c
BW-2	2	1.0-8200 ohms	1¾ x 21/64	45c	27c	23c	14c

10% tolerance available only in values printed in bold type: 5% available in all values.

Type BT insulated carbon resistors are completely insulated with bakelite and unexcelled for stability, low noise level, low voltage coefficient and mechanical strength. Insulation breakdown of Type BTS is 750 volts to ground; all other Type BT's 1000 volts. Standard tolerance ±10%. ±5% at higher cost.

Type BW insulated wire wound resistors are identical with Type BT except that resistance element is close wound around special insulated core. Tolerance ±10%. ±5% available at higher cost.

CAPACITY CHART

Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Megs	Megs	Megs
0.27	11	**68**	430	**2,700**	16,000	**0.1**	0.62	**3.9**
0.33	**12**	75	**470**	3,000	**18,000**	0.11	**0.68**	4.3
0.39	13	**82**	510	**3,300**	20,000	**0.12**	0.75	**4.7**
0.47	**15**	91	**560**	3,600	**22,000**	0.13	**0.82**	5.1
0.56	16	**100**	620	**3,900**	24,000	**0.15**	0.91	**5.6**
0.68	**18**	110	**680**	4,300	**27,000**	0.16	**1.0**	6.2
0.82	20	**120**	750	**4,700**	30,000	**0.18**	1.1	**6.8**
1.0	**22**	130	**820**	5,100	**33,000**	0.20	**1.2**	7.5
1.2	24	**150**	910	**5,600**	36,000	**0.22**	1.3	**8.2**
1.5	**27**	160	**1,000**	6,200	**39,000**	0.24	**1.5**	9.1
1.8	30	**180**	1,100	**6,800**	43,000	**0.27**	1.6	**10.0**
2.2	**33**	200	**1,200**	7,500	**47,000**	0.30	**1.8**	11.0
2.7	36	**220**	1,300	**8,200**	51,000	**0.33**	2.0	**12.0**
3.3	**39**	240	**1,500**	9,100	**56,000**	0.36	**2.2**	13.0
3.9	43	**270**	1,600	**10,000**	62,000	**0.39**	2.4	**15.0**
4.7	**47**	300	**1,800**	11,000	**68,000**	0.43	**2.7**	16.0
5.6	51	**330**	2,000	**12,000**	75,000	**0.47**	3.0	**18.0**
6.8	**56**	360	**2,200**	13,000	**82,000**	0.51	**3.3**	20.0
8.2	62	**390**	2,400	**15,000**	91,000	**0.56**	3.6	**22.0**
10								

ALL-METAL RESIST-O-CABINET

Again available in large steel cabinets, 3 new IRC RESIST-O-CABINETS provide the perfect way to buy and stock resistors. Four drawer cabinets have 28 range identified compartments—a neat, efficient stocking arrangement that also saves time in unnecessary buying trips. Blue, yellow and silver finish adds attractiveness to shop. Drawers have non-spill feature, and cabinets are designed for stacking. Size 5⅜" x 5¹⁵⁄₁₆" x 10⅞". No extra charge is made for cabinet when purchased with any of the 3 RESIST-O-CABINETS detailed on this page. RESIST-O-CABINETS are available in three combinations. Assortment No. 5, listed in adjoining column; Assortment No. 4, consisting of 100 BW½ and BTS½ one-half watt resistors; Assortment No. 6, 91 insulated resistors and close tolerance precistors.

COMBINATION RESIST-O-CABINET

Assortment No. 6—91 Insulated Resistors and Close Tolerance Precistors. Net Each..... **$17.10**

Range	½ Watt	1 Watt	2 Watt	DCF
47 ohms	1	1	1	—
100 ohms	1	1	1	—
150 ohms	1	1	—	—
220 ohms	1	1	—	—
270 ohms	1	1	—	—
470 ohms	1*	1	1	—
1,000 ohms	3*	2*	—	1
1,500 ohms	1	1	—	—
2,200 ohms	1*	1	—	—
2,700 ohms	1*	1	—	—
3,300 ohms	1*	1*	—	—
4,700 ohms	2*	1*	1	—
10,000 ohms	2*	2*	1*	1
15,000 ohms	1	1*	—	—
22,000 ohms	1*	1*	1*	—
27,000 ohms	1*	2*	—	—
33,000 ohms	1*	1*	—	—
39,000 ohms	1	1*	—	—
47,000 ohms	3*	2*	1*	—
68,000 ohms	1*	1*	—	—
0.1 meg	3*	2*	—	1
0.15 meg	1	1	—	—
0.22 meg	2*	1	—	—
0.27 meg	3*	1	—	—
0.47 meg	3*	2	—	—
1.0 meg	3*	2*	—	1
2.2 meg	2*	1	—	—
4.7 meg	1*	1	—	—
5.0 meg	—	—	—	1

*Popular television ranges. DCF—PRECISTOR.

1 WATT RESIST-O-CABINET

Assortment No. 5—83 BW-1 and BTA 1 Watt Resistors. Net Each..... **$14.94**

Quantity	Range	Quantity	Range
2	47 ohms	3	22,000 ohms*
2	100 ohms	5	27,000 ohms*
2	150 ohms	2	33,000 ohms*
2	220 ohms	2	39,000 ohms*
2	270 ohms	5	47,000 ohms*
2	470 ohms	2	68,000 ohms*
5	1,000 ohms*	5	0.1 meg*
2	1,500 ohms	2	0.15 meg
3	2,200 ohms	2	0.22 meg
2	2,700 ohms	5	0.27 meg
2	3,300 ohms*	5	0.47 meg
3	4,700 ohms*	5	1.0 meg*
5	10,000 ohms*	2	2.2 meg
2	15,000 ohms*	2	4.7 meg

*1 watt values most widely found in television.

½ WATT RESIST-O-CABINET

Assortment No. 4—100 BW ½ and BTS ½ Watt Resistors. Net Each..... **$12.00**

Quantity	Range	Quantity	Range
2	47 ohms	3	33,000 ohms*
3	100 ohms	6	47,000 ohms*
2	220 ohms	2	56,000 ohms*
2	270 ohms	2	68,000 ohms*
3	470 ohms*	6	0.1 meg*
6	1,000 ohms*	5	0.22 meg*
2	1,500 ohms	6	0.27 meg*
2	2,200 ohms*	3	0.33 meg*
2	2,700 ohms*	6	0.47 meg*
3	3,300 ohms*	6	1.0 meg*
5	4,700 ohms*	5	2.2 meg*
5	10,000 ohms*	2	3.3 meg
3	22,000 ohms*	3	4.7 meg*
3	27,000 ohms*	2	10.0 meg

*½ watt values most widely found in television.

NEW RESIST-O-KITS

Flat, pocket-size metal kit of ½ or 1 watt BT Insulated Composition Resistors is ideal for service calls or small bench stocks. All-steel and attractively lithographed in blue and yellow. RESIST-O-KIT measures 11/16" x 3 1/16" x 6 3/8". Ten compartments prevent ranges from mixing, and lid snaps securely shut. This handy kit is furnished at no extra charge with either of two inexpensive assortments described below.

Resist-O-Kit Assortment No. 7—45 BTS ½ Watt Resistors. Net Each..... **$5.40**

Quantity	Resistance Range	Quantity	Resistance Range
4	1,000 ohms*	3	0.22 meg*
3	4,700 ohms*	5	0.27 meg*
4	10,000 ohms*	6	0.47 meg*
5	47,000 ohms*	5	1.0 meg*
6	0.1 meg*	4	2.2 meg*

*Widely found in television.

Resist-O-Kit Assortment No. 8—30 BTA 1 Watt Resistors. Net Each..... **$5.40**

Quantity	Resistance Range	Quantity	Resistance Range
4	1,000 ohms*	4	47,000 ohms*
2	2,200 ohms	4	0.1 meg*
2	4,700 ohms*	2	0.27 meg
3	10,000 ohms*	4	0.47 meg
2	27,000 ohms*	3	1.0 meg*

*Widely found in television.

76-54A

Resistors, Rheostats, Potentiometers

IRC PRECISION RESISTORS

PRECISION WIRE WOUND RESISTORS

TYPE WW2J

1 watt at 85° C or 2 watts at 40° C ambient temperature. Voltage, 2000, maximum. **Body Size:** 15/32" dia. x 2 1/16" overall length. MIL-R-93A No. RB19.

Meg-ohms	Net Each	Meg-ohms	Net Each	Meg-ohms	Net Each	Meg-ohms	Net Each
0.6	$6.00	0.9	$8.28	1.5	$12.62	2.5	$18.55
0.75	6.00	1.0	8.28	2.0	15.24	.....	.....

TYPE WW3J

.35 watt at 85° C or 1 watt at 40° C ambient temperature. Voltage, 100 maximum. **Body Size:** 19/32" dia. x 9/16" overall length. MIL-R-93A No. RB16.

Ohms	Net Ea.	Ohms	Net Ea.	Megohms	Net Ea.
0.1	$1.78	25	$1.37	0.1	$1.55
0.2	1.78	50	1.37	0.125	1.83
0.5	1.47	100—5K	1.05	0.15	2.13
1.0	1.47	7.5K—60K	1.23	0.175	2.13
5	1.37	75K	1.55	0.2	1.78
10	1.37	.....	.....	0.225	1.78

TYPE WW4J

.5 watt at 85° C or 1.2 watts at 40° C ambient temperature. Voltage, 700 maximum. **Body Size:** 19/32" dia. x 31/32" overall length. MIL-R-93A No. RB17.

Ohms	Net Ea.	Ohms	Net Ea.	Megohms	Net Ea.
0.1—0.2	$1.90	3K—25K	$1.33	0.175—0.2	$2.20
0.5	1.64	30K—100K	1.72	0.3	2.67
1.0—50	1.43	125K	1.98	0.4	2.72
100—2500	1.17	150K	2.16	0.5	3.15

TYPE WW5J

.15 watt at 85° C or 1.3 watts at 40° C ambient temperature. Voltage, 700 maximum. **Body Size:** 15/32" dia. x 1 1/4" overall length. MIL-R-93A No. RB18.

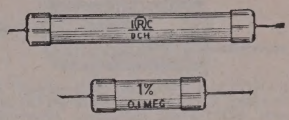
Megs.	Net Ea.	Megs.	Net Ea.	Megs.	Net Ea.	Megs.	Net Ea.
0.6	$5.10	0.75	$6.00	0.9	$5.35	1	$6.50

TYPE WW10J MIDGETS

.15 watt at 85° C or .25 watt at 40° C ambient temperature. Voltage 200 maximum. **Body Size:** 9/16" dia. x 13/16" overall length.

Ohms	Net Ea.	Ohms	Net Ea.	Ohms	Net Ea.
10	$1.22	15K—30K	$1.17	75K—100K	$1.52
25—1500	.98	40K—50K	1.30	.....	.....
2000—12500	1.07	60K	1.42	.....	.....

CLOSE TOLERANCE PRECISTORS



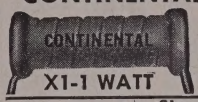
IRC PRECISTORS are deposited carbon precision resistors offering a unique combination of close tolerance, stability and economy. Pure crystalline carbon is bonded to selected ceramic cores, producing a resistor ideally suited to the requirements of instrumentation, advanced electronics and critical television circuits. Guaranteed accuracy ±1%. Relation between accuracy and load as follows.

To Maintain Value Within	Limit Load To DCF	Limit Load To DCH
1%	1/4 watt	1/2 watt
2%	1/2 watt	1 watt
5%	1 watt	2 watt

Type DCF—100 ohms to 5.0 megohms. Net Each . **60c**
Over 5 to 10.0 meg. Net . . **66c**

Type DCH—200 ohms to 10.0 megohms. Net Each **72c**
10.0 to 20.0 megs. Net. . . . **78c**

CONTINENTAL CARBON RESISTORS



Ceramic core with metal resistance film deposited on outside, hermetically sealed with layer of vitreous enamel over all. 1% tolerance, 1 watt, type X-1, 9/32" x 1". Shipping weight, 2 ounces.

Type	Wattage	Size, Inches	Range of Values	Net Each 1%	Net Each 5%
X-1/2	1/2 Watt	9/32 x 5/8	1 ohm to 1 meg.	$0.48	$0.42
X-1	1 Watt	9/32 x 1	1.1 meg. to 10 meg.	.78	.69
X-2	2 Watt	9/32 x 1 1/4	2 ohm to 1 meg.	.75	.66
X-5	5 Watt	1/2 x 2	3 ohm to 1 meg.	.90	.81

Ohms	Ohms	Ohms	Ohms	Ohms
1	1450	8,950	100,000	1.0 Meg.
5	1500	9,950	150,000	1.1 Meg.
10	2000	10,000	200,000	1.5 Meg.
15	2500	13,500	240,000	2.0 Meg.
20	2950	15,000	250,000	2.5 Meg.
25	3500	20,000	300,000	3.0 Meg.
50	4000	25,000	400,000	3.5 Meg.
100	4450	30,000	450,000	4.0 Meg.
150	4950	40,000	490,000	5.0 Meg.
200	5000	50,000	500,000	6.0 Meg.
300	5500	60,000	600,000	7.0 Meg.
400	5950	75,000	750,000	8.0 Meg.
500	7450	85,000	800,000	9.0 Meg.
1000	8500	90,000	900,000	10.0 Meg.

MALLORY SPECIAL PURPOSE CONTROLS

TYPE M VARIABLE WIRE-WOUND RESISTORS—STUB SHAFT

Precision wire-wound potentiometers and rheostats used on bias controls and voltage dividers in bridge circuits and test instruments. Rugged construction, 4 watt rating, for use in applications where reliability is paramount. Rheostats have "off" position (no contact). Insulated contact arm. Potentiometers have 3 terminals, rheostats 2. Total rotation 294°; effective electrical rotation 279°. Provided with short slotted shaft for easy screwdriver adjustment. Take standard knobs. Hex. nut furnished. Shipping weight 4 oz.

TYPE M RHEOSTATS*

Mallory No.	Ohms Resis.	Carrying Capacity in Amps.	Net Each
M05RK	1/2	2.80	75c
M1RK	1	2.00	
M2RK	2	1.4	
M3RK	3	1.15	
M4RK	4	1.00	
M6RK	6	.82	
M10RK	10	.63	
M15RK	15	.52	
M20RK	20	.45	
M25RK	25	.40	
M30RK	30	.37	
M40RK	40	.32	
M50RK	50	.28	
M60RK	60	.26	
M75RK	75	.23	
M100RK	100	.20	

*"Open" or "Off" position counter-clockwise.

TYPE M POTENTIOMETERS

Mallory No.	Ohms Resis.	Carrying Capacity in Amps.	Net Each
M1PK	1	2.00	90c
M3PK	3	1.15	
M6PK	6	.82	
M10PK	10	.63	
M15PK	15	.52	
M20PK	20	.45	
M25PK	25	.40	
M30PK	30	.37	
M40PK	40	.32	
M50PK	50	.28	
M60PK	60	.26	
M75PK	75	.23	
M100PK	100	.20	
M200PK	200	.14	
M400PK	400	.10	
M500PK	500	.09	
M600PK	600	.082	
M1MPK	1M	.063	$1.05
M2MPK	2M	.045	
M3MPK	3M	.037	
M4MPK	4M	.032	
M5MPK	5M	.028	
M10MPK	10M	.020	$1.20
M15MPK	15M	.016	
M20MPK	20M	.014	
M25MPK	25M	.013	
M50MPK	50M	.009	$1.44
M70MPK	70M	.0075	

TYPE R WIREWOUND POTS

For replacement of TV controls requiring 2 watt unit. Also for V-divider and bias applications. High quality, dust-proof, 1 5/16" overall dia. 1500 v. insulation. No 4 taper. Thumb knurled, screwdriver slotted stub shaft. Bushing, 3/8". One Pal-nut with each control.

Mallory No.	Ohms Resistance	Net Each
R20L	20	$0.75
R20CT	20	1.11
R25L	25	.75
R30L	30	.75
R30CT	30	1.11
R50L	50	.75
R100L	100	.75
R250L	250	.75
R500L	500	.75
R1000L	1000	.84
R1500L	1500	.84
R2500L	2500	.84
R5000L	5000	.84

TYPE E WIRE-WOUND POTENTIOMETERS—STUB SHAFT

Suitable for precision instruments such as resistance bridges and where a control of medium currents or voltages is required. Supplied with grounded contact arm. 310° total rotation; 299° effective electrical rotation. Will dissipate 7 watts. Provided with short shaft, milled screw-driver slot for easy adjustment. Will take standard knobs. Hex. nut furnished. Shipping weight 4 oz.

Mallory No.	Ohms Resis.	Carrying Capacity in Amps.	Net Each
E5MP	5M	.042	$2.28
E10MP	10M	.03	2.43
E20MP	20M	.021	2.52
E25MP	25M	.019	2.55
E50MP	50M	.0135	2.58
E75MP	75M	.011	2.67
E100MP	100M	.0095	2.73
E125MP	125M	.0085	2.73
E150MP	150M	.0078	2.79

SANGAMO *Electrolytic Capacitors*

ELECTROLYTICS TYPES MT-MTD-MTH

SANGAMO Type MT "Chieftain" electrolytics are especially designed for television and other electronic applications where operation at 85° C temperatures is required. They are hermetically sealed in round aluminum containers which are encased in heavy insulating sleeves on which polarity is clearly indicated. Being small in physical size they are most popular where mounting in limited space is required. They will fit anywhere and can be mounted in almost any position. Double paper spacers assure adequate breakdown characteristics and all sections are tightly held in place within the container.

SINGLE UNITS

Sangamo No.	Cap. Mfd.	WV. DC	Size, In. D. x L.	Net Each
MT-0210	10	25	⅝x1 1/16	$0.60
MT-0225	25	25	⅝x1 1/16	.60
MT-0250	50	25	⅝x1 5/16	.66
MT-0510	10	50	⅝x1 1/16	.60
MT-0525	25	50	⅝x1 5/16	.63
MT-0550	50	50	¾x1 9/16	.72
MT-1504	4	150	⅝x1 1/16	.60
MT-1508	8	150	⅝x1 5/16	.63
MT-1512	12	150	⅝x1 5/16	.66
MT-1516	16	150	⅞x1 9/16	.69
MT-1520	20	150	⅞x1 9/16	.72
MT-1530	30	150	¾x1 9/16	.78
MT-1540	40	150	¾x1 13/16	.81
MT-1550	50	150	⅞x1 13/16	.84
MT-2508	8	250	⅞x1 9/16	.69
MT-2512	12	250	⅞x1 13/16	.75
MT-2516	16	250	¾x1 9/16	.78
MT-2520	20	250	¾x1 13/16	.81
MT-2540	40	250	⅞x2 5/16	.93
MT-3508	8	350	¾x1 9/16	.72
MT-3512	12	350	¾x1 13/16	.78
MT-3516	16	350	⅞x1 13/16	.84
MT-4504	4	450	⅝x1 5/16	.69
MT-4508	8	450	¾x1 9/16	.75
MT-4510	10	450	¾x1 9/16	.78
MT-4512	12	450	⅞x1 9/16	.81
MT-4516	16	450	⅞x1 13/16	.84
MT-4520	20	450	1x1 13/16	.93
MT-4530	30	450	1x2 5/16	1.02
MT-4540	40	450	1x2⅞	1.08

DUAL UNITS

MTD-0210	10–10	25	⅞x1 1/16	.84
MTD-0220	20–20	25	⅞x1 1/16	.84
MTD-1520	20–20	150	¾x1 9/16	.99
MTD-1530	30–30	150	⅞x1 9/16	1.08
MTD-301	50–30	150	1x1 13/16	1.17
MTD-302	40–20	150	1x1 13/16	1.05
MTD-1540	40–40	150	1x1 13/16	1.11
MTD-1550	50–50	150	1x2 5/16	1.26
MTD-2520	20–20	250	1x1 13/16	1.11
MTD-3520	20–20	350	1x2⅞	1.35
MTD-4508	8–8	450	⅞x1 13/16	1.02
MTD-4510	10–10	450	1x1 13/16	1.11
MTD-4520	20–20	450	1x2⅞	1.50

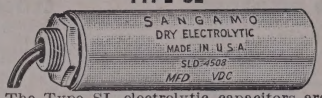
Note—Above dimensions are for metal tubes. Add 1/16" to diameter and 3/16" to length for dimensions over cardboard insulating tube.

TYPE MTH ELECTROLYTIC CAPACITORS

Type MTH capacitors are comparable in construction to the SANGAMO Type MT, except all ratings are provided with a mounting strap.

MTH-0610	100	6	⅝x1 1/16	.72
MTH-0625	250	6	⅝x1 9/16	.81
MTH-0650	500	6	¾x2 5/16	.93
MTH-06100	1000	6	1x1 13/16	1.14
MTH-06150	1500	6	1x2 5/16	1.26
MTH-1210	100	12	⅝x1 9/16	.72
MTH-1225	250	12	¾x1 13/16	.87
MTH-1250	500	12	⅞x2 5/16	1.02
MTH-1510	100	15	⅝x1 9/16	.75
MTH-1525	250	15	¾x1 13/16	.93
MTH-1550	500	15	⅞x2 5/16	1.05
MTH-2510	100	25	¾x1 9/16	.81
MTH-2525	250	25	⅞x1 13/16	1.02
MTH-2550	500	25	1x2 5/16	1.38
MTH-5010	100	50	⅞x1 9/16	.84

ELECTROLYTIC TYPE SL



The Type SL electrolytic capacitors are designed primarily as replacements for wet electrolytics and are assembled in round aluminum cans. The neck of the can is threaded and a palnut is supplied to provide an easy mounting to a chassis. The Type SL is completely insulated from the container, the negative connection being made to one of the insulated leads extending through the threaded neck.

SINGLE SECTION

Sangamo No.	Cap. Mfd.	WV. DC	Size, In. D. x L.	Net Each
SL-2512	12	250	1x2½	1.05
SL-2525	25	250	1x3½	1.17
SL-4508	8	450	1⅜x2½	1.32
SL-4512	12	450	1⅜x2½	1.44
SL-4516	16	450	1⅜x2½	1.47
SL-4520	20	450	1⅜x2½	1.62
SL-4530	30	450	1⅜x3½	1.80
SL-4540	40	450	1⅜x4¼	1.89

COMMON NEGATIVE SECTION

SLD-4508	8-8	450	1⅜x3½	1.80
SLD-4516	16-16	450	1⅜x3½	2.13
SLD-4520	20-20	450	1⅜x4¼	2.20
SLT-4508	8-8-8	450	1⅜x3½	3.00

DUAL SEPARATE SECTION

SLX-4508	8-8	450	1⅜x3	2.25
SLX-580	8-16	450	1⅜x3½	2.43

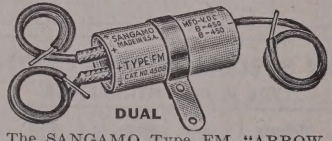
TRIPLE SEPARATE SECTION

SLS-4508	8-8-8	450	1⅜x3½	3.75

HIGH VOLTAGE SERIES WOUND SECTIONS

SL-6004	4	600	1⅜x3½	1.77
SL-6008	8	600	1⅜x4¼	1.89
SL-6016	16	600	1⅜x4¼	2.25

ELECTROLYTIC TYPE FM



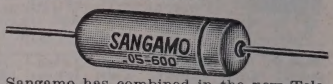
The SANGAMO Type FM "ARROWHEAD" electrolytic capacitors are similar in design to the Type MT "CHIEFTAIN" in every respect except leads. The Type FM is equipped with flexible, insulated wire leads and stud terminals eliminating the problem of crossed wires and the necessity for the use of insulating sleeves.

SINGLE UNITS

Sangamo No.	Cap. Mfd.	WV. DC	Size, In. D x L	Net Each
FM-0210	10	25	⅝ x 1 1/16	$0.60
FM-0225	25	25	⅝ x 1 1/16	.60
FM-0250	50	25	⅝ x 1 5/16	.66
FM-0510	10	50	⅝ x 1 1/16	.60
FM-0525	25	50	⅝ x 1 5/16	.63
FM-0550	50	50	¾ x 1 9/16	.72
FM-1504	4	150	⅝ x 1 1/16	.60
FM-1508	8	150	⅝ x 1 5/16	.63
FM-1512	12	150	⅝ x 1 5/16	.66
FM-1516	16	150	⅝ x 1 9/16	.69
FM-1520	20	150	⅝ x 1 9/16	.72
FM-1530	30	150	¾ x 1 9/16	.78
FM-1540	40	150	¾ x 1 13/16	.81
FM-1550	50	150	⅞ x 1 13/16	.84
FM-2508	8	250	⅝ x 1 9/16	.69
FM-2512	12	250	⅝ x 1 13/16	.75
FM-2516	16	250	¾ x 1 9/16	.78
FM-2520	20	250	¾ x 1 13/16	.81
FM-2540	40	250	⅞ x 2 5/16	.93
FM-3508	8	350	¾ x 1 9/16	.72
FM-3512	12	350	¾ x 1 13/16	.78
FM-3516	16	350	⅞ x 1 13/16	.84
FM-4504	4	450	⅝ x 1 5/16	.69
FM-4508	8	450	¾ x 1 9/16	.75
FM-4510	10	450	¾ x 1 9/16	.78
FM-4512	12	450	⅞ x 1 9/16	.81
FM-4516	16	450	⅞ x 1 13/16	.84
FM-4520	20	450	1 x 1 13/16	.93
FM-4530	30	450	1 x 2 5/16	1.02
FM-4540	40	450	1 x 2⅞	1.08

127-54B

TYPE 33 TELECHIEF PLASTIC MOLDED PAPER TUBULARS



Sangamo has combined in the new Telechief premium molded capacitor two recently developed materials: a new impregnant with superior electrical and mechanical characteristics, and Humiditite, a physically rugged thermosetting plastic molding material with exceptional humidity characteristics.

The "Telechief" assures operating dependability under extremes of heat (to 85°C), humidity and physical stress.

200 W. V. D. C.

Sang. No.	Cap. Mfd.	Size, In. Dia. x Lgt.	Net Each
330201	.1	¼x1½	$0.21
3302025	.25	⅝x2	.27
330205	.5	¾x2	.36
330210	1.0	1x2⅛	.54

400 W. V. D. C.

330411	.01	⅜x1⅛	.15
330412	.02	7/16x1¼	.15
330415	.05	½x1½	.18
330401	.1	9/16x1⅝	.21
330402	.2	⅝x2	.24
3304025	.25	⅝x2	.27
330405	.5	⅞x2	.36
330410	1.0	1 1/16x2½	.54

600 W. V. D. C.

330635	.0005	5/16x1	.15
330621	.001	5/16x1	.15
330622	.002	5/16x1	.15
330623	.003	5/16x1	.15
330624	.004	5/16x1	.15
330625	.005	5/16x1	.15
330626	.006	⅜x1⅛	.15
330611	.01	7/16x1¼	.18
330612	.02	7/16x1¼	.18
330613	.03	½x1½	.21
330614	.04	½x1½	.24
330615	.05	½x1½	.24
330616	.06	9/16x1⅝	.24
330601	.1	⅝x2	.27
330602	.2	¾x2	.33
3306025	.25	¾x2	.33
330605	.5	1x2⅛	.48
330610	1.0	1⅜x2⅝	.75

Note—Additional capacity values in the 200 and 400 volt ratings can be supplied on request.

DUAL UNITS

Sangamo No.	Cap. Mfd.	WV. DC	Size, In. D. x L.	Net Each
FMD-0210	10-10	25	⅞x1 1/16	$0.84
FMD-0510	10-10	50	⅞x1 5/16	.84
FMD-1508	8-8	150	⅞x1 1/16	.90
FMD-1516	16-16	150	¾x1 9/16	1.08
FMD-1520	20-20	150	¾x1 9/16	.99
FMD-305	30-20	150	⅞x1 9/16	1.02
FMD-1530	30-30	150	⅞x1 9/16	1.08
FMD-302	40-20	150	1x1 13/16	1.05
FMD-304	40-30	150	1x1 13/16	1.08
FMD-1540	40-40	150	1x1 13/16	1.11
FMD-301	50-30	150	1x1 13/16	1.17
FMD-1550	50-50	150	1x2 1/16	1.26
FMD-2516	16-16	250	1x1 13/16	1.05
FMD-4508	8-8	450	⅞x1 13/16	1.02
FMD-308	8-16	450	1x1 13/16	1.20
FMD-4520	20-20	450	1x2⅞	1.50

TRIPLE UNITS

FMT-1520	20-20-20	150	⅞x1 9/16	1.32
FMT-1530	30-30-30	150	⅞x2 5/16	1.41
FMT-310	40-20-20	150	⅞x2 5/16	1.35
FMT-312	40-30-20	150	⅞x2 5/16	1.41
FMT-1540	40-40-40	150	1x2 5/16	1.47
FMT-315	50-30-20	150	1x2 5/16	1.44
FMT-317	20-20-20	*	⅞x1 5/16	1.23
FMT-321	40-20-20	*	1x1 13/16	1.29
FMT-323	40-30-20	*	1x1 13/16	1.32
FMT-327	50-30-20	*	1x1 13/16	1.41
FMT-331	50-30-100	*	1x2 5/16	1.53
FMT-333	80-40-20	*	1x2⅞	1.56
FMT-333	12-12-20	†	1x2 5/16	1.38

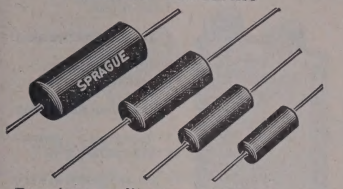
*At 150-150-25 volts. †At 450-450-25 v.

Note—All units are supplied with mounting strap attached.

Note—Diagram dimensions are for metal tubes. Add 1/16" to diameter and 3/16" to length for dimensions over cardboard insulating tube.

Paper Capacitors by SPRAGUE

TELECAP® BLACK BEAUTY® MOLDED TUBULARS



Premium quality at no extra cost.

- Made under exclusive "Dry Process" just like costly metal-encased oil units.
- Molded in tough bakelite phenolic.
- Extremely high insulation resistance.
- Will withstand severe heat, moisture, shock.
- Non-flammable case.
- Only Telecaps are oil-impregnated in ratings from 600 to 12,500 WVDC.
- Rated for 85° C (185° F) operation.

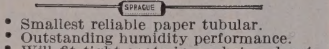
Cat. No.	Mfd.	D. x L. In.	Net
200 WVDC			
2TM-[illegible]2	.02	3/16 x 1 1/4	$0.15
2TM-S47	.047	3/16 x 1 1/4	.15
2TM-S5	.05	3/16 x 1 1/4	.15
2TM-P1	.1	7/16 x 1 1/4	.21
2TM-P15	.15	1/2 x 1 1/2	.21
2TM-P22	.22	5/8 x 1 7/8	.24
2TM-P25	.25	5/8 x 1 7/8	.24
2TM-P47	.47	5/8 x 1 7/8	.36
2TM-P5	.5	5/8 x 1 7/8	.36
2TM-M1	1.0	3/4 x 2 1/4	.54
400 WVDC			
4TM-S1	.01	5/16 x 1	.15
4TM-S2	.02	3/8 x 1 1/4	.15
4TM-S22	.022	3/8 x 1 1/4	.15
4TM-S47	.047	7/16 x 1 1/4	.18
4TM-S5	.05	7/16 x 1 1/4	.18
4TM-S68	.068	1/2 x 1 1/2	.21
4TM-P1	.1	5/8 x 1 7/8	.35
4TM-P15	.15	5/8 x 1 7/8	.35
4TM-P22	.22	5/8 x 1 7/8	.24
4TM-P25	.25	5/8 x 1 7/8	.24
4TM-P5	.5	3/4 x 2 1/4	.36
600 WVDC			
6TM-T1	.0001	5/16 x 1	.15
6TM-T25	.00025	5/16 x 1	.15
6TM-T4	.0004	5/16 x 1	.15
6TM-T5	.0005	5/16 x 1	.15
6TM-D1	.001	5/16 x 1	.15
6TM-D15	.0015	5/16 x 1	.15
6TM-D2	.002	5/16 x 1	.15
6TM-D22	.0022	5/16 x 1	.15
6TM-D3	.003	5/16 x 1	.15
6TM-D4	.004	5/16 x 1	.15
6TM-D47	.0047	5/16 x 1	.15
6TM-D5	.005	3/8 x 1	.15
6TM-D6	.006	3/8 x 1 1/4	.15
6TM-D68	.0068	3/8 x 1 1/4	.18
6TM-S1	.01	3/8 x 1 1/4	.18
6TM-S15	.015	3/8 x 1 1/4	.18
6TM-S2	.02	7/16 x 1 1/4	.18
6TM-S22	.022	7/16 x 1 1/4	.18
6TM-S3	.03	7/16 x 1 1/4	.21
6TM-S4	.04	1/2 x 1 1/2	.21
6TM-S47	.047	1/2 x 1 1/2	.24
6TM-S5	.05	1/2 x 1 1/2	.24
6TM-S6	.06	5/8 x 1 7/8	.24
6TM-P1	.1	5/8 x 1 7/8	.27
6TM-P15	.15	3/4 x 2 1/4	.30
6TM-P25	.25	3/4 x 2 1/4	.33
6TM-P5	.5	1 x 2 3/8	.48
*TC-10	1.0	1 x 2 5/8	.75
1000 WVDC			
10TM-T5	.0005	5/16 x 1	.30
10TM-D1	.001	5/16 x 1	.30
10TM-D15	.0015	5/16 x 1	.30
10TM-D2	.002	5/16 x 1	.30
10TM-D22	.0022	5/16 x 1	.30
10TM-D3	.003	3/8 x 1 1/4	.30
10TM-D4	.004	3/8 x 1 1/4	.30
10TM-D47	.0047	3/8 x 1 1/4	.30
10TM-D5	.005	3/8 x 1 1/4	.30
10TM-D68	.0068	3/8 x 1 1/4	.30
10TM-S1	.01	3/8 x 1 1/4	.30
10TM-S15	.015	7/16 x 1 1/4	.30
10TM-S2	.02	1/2 x 1 1/2	.30
10TM-S22	.022	1/2 x 1 1/2	.30
10TM-S3	.03	1/2 x 1 1/2	.30
10TM-S35	.035	1/2 x 1 1/2	.30
10TM-S47	.047	5/8 x 1 7/8	.36
10TM-S5	.05	5/8 x 1 7/8	.36
10TM-S68	.068	5/8 x 1 7/8	.39

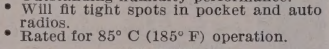
*Supplied in waxed cardboard units pending completion of molds.

1600 WVDC (BUFFER CAPACITORS)			
MB-T5	.0005	3/8 x 1 1/4	.39
MB-D1	.001	3/8 x 1 1/4	.39
MB-D15	.0015	3/8 x 1 1/4	.39
MB-D2	.002	3/8 x 1 1/4	.39
MB-D22	.0022	3/8 x 1 1/4	.39
MB-D3	.003	3/8 x 1 1/4	.39
MB-D33	.0033	7/16 x 1 1/4	.39
MB-D4	.004	3/8 x 1 1/4	.39
MB-D47	.0047	7/16 x 1 1/4	.39
MB-D5	.005	7/16 x 1 1/4	.39
MB-D6	.006	7/16 x 1 1/4	.39
MB-D68	.0068	1/2 x 1 1/2	.39
MB-D7	.007	7/16 x 1 1/4	.39
MB-D75	.0075	7/16 x 1 1/4	.39
MB-D8	.008	1/2 x 1 1/2	.39
MB-S1	.01	1/2 x 1 1/2	.42
MB-S15	.015	1/2 x 1 1/2	.42
MB-S2	.02	5/8 x 1 7/8	.42
MB-S22	.022	5/8 x 1 7/8	.42
MB-S3	.03	5/8 x 1 7/8	.42
MB-S4	.04	3/4 x 2 1/4	.42
*TR-15	.05	3/4 x 2 1/8	.42
*TR-215	2 x .015	3/4 x 2	.48
6000 WVDC			
TVM-356	.0005	1/2 x 1 1/2	.81
TVM-216	.001	1/2 x 1 1/2	.81
TVM-256	.005	5/8 x 1 7/8	.81
10,000 WVDC			
TVM-351	.0005	5/8 x 1 7/8	.90
12,500 WVDC			
12TVM-325	.00025	5/8 x 1 7/8	1.02

*Supplied in waxed cardboard units pending completion of molds.

MIDGET® TUBULARS





- Smallest reliable paper tubular.
- Outstanding humidity performance.
- Will fit tight spots in pocket and auto radios.
- Rated for 85° C (185° F) operation.

Cat. No.	Mfd.	D. x L. In.	Net
100 WVDC			
68P19	.25	15/32 x 1 1/4	$0.42
68P20	.5	5/8 x 1 1/8	.48
200 WVDC			
68P11	.005	1/4 x 11/16	.21
68P12	.006	1/4 x 11/16	.21
68P14	.01	9/32 x 11/16	.24
68P15	.02	9/32 x 13/16	.27
68P16	.05	5/16 x 1	.30
68P17	.1	13/32 x 1	.36
68P18	.2	15/32 x 1 1/8	.39
68P24	.25	17/32 x 1 1/8	.42
68P25	.5	5/8 x 1 3/8	.48
400 WVDC			
68P1	.001	1/4 x 11/16	.21
68P3	.003	1/4 x 11/16	.21
68P4	.004	1/4 x 11/16	.21
68P5	.005	1/4 x 13/16	.21
68P6	.006	1/4 x 13/16	.21
68P8	.01	5/16 x 13/16	.24
68P9	.02	5/16 x 1	.27
68P10	.05	13/32 x 1	.30
68P21	.1	15/32 x 1 1/8	.39
68P38	.2	5/8 x 1 1/8	.42
68P22	.25	5/8 x 1 3/8	.45
68P23	.5	5/8 x 2 5/16	.51
600 WVDC			
68P26	.001	1/4 x 11/16	.21
68P27	.002	1/4 x 11/16	.21
68P28	.003	9/32 x 11/16	.21
68P29	.004	9/32 x 13/16	.21
68P30	.005	9/32 x 13/16	.24
68P31	.006	5/16 x 13/16	.24
68P32	.008	5/16 x 1	.24
68P33	.01	5/16 x 1	.27
68P34	.02	11/32 x 1	.30
68P35	.05	15/32 x 1 1/8	.33
68P36	.1	5/8 x 1 1/8	.42
68P40	.2	5/8 x 1 11/16	.48
68P37	.25	5/8 x 2	.48

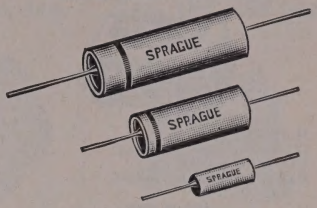
RESONANT CAPACITORS

- Stop self-oscillation, permitting "on-the-nose" alignment.
- By-pass unwanted I-F signals.
- Stabilize any AC-DC "Squealer" receiver.

Cat. No.	Mfd.	WVDC	D. x L. In.	Net
72P51	.05	400	1/2 x 1 1/8	$0.30
72P52	.1	400	1/2 x 1 5/8	.39
72P53	.2	400	9/16 x 1 7/8	.42

165-54A

METAL CLAD TUBULARS



- Hermetically sealed.
- Non-inductively wound.
- Oil-impregnated, oil-filled.
- Insulating cardboard sleeve.

Cat. No.	Mfd.	D. x L. In.	Net
600 WVDC			
PX-316	.0001	1/2 x 1 1/4	$0.57
PX-3256	.00025	1/2 x 1 1/4	.57
PX-356	.0005	1/2 x 1 1/4	.57
PX-216	.001	1/2 x 1 1/4	.57
PX-226	.002	1/2 x 1 1/4	.57
PX-236	.003	1/2 x 1 1/4	.57
PX-246	.004	1/2 x 1 1/4	.57
PX-256	.005	1/2 x 1 1/4	.57
PX-266	.006	1/2 x 1 1/4	.57
PX-276	.007	1/2 x 1 1/4	.57
PX-286	.008	1/2 x 1 1/4	.57
PX-296	.009	1/2 x 1 1/4	.57
PX-116	.01	1/2 x 1 1/4	.57
PX-126	.02	1/2 x 1 3/4	.63
PX-136	.03	5/8 x 1 5/8	.66
PX-146	.04	5/8 x 1 5/8	.66
PX-156	.05	5/8 x 1 5/8	.66
PX-166	.06	11/16 x 1 3/8	.72
PX-186	.08	11/16 x 1 7/8	.72
PX-16	.1	11/16 x 1 7/8	.75
PX-26	.25	13/16 x 2 13/16	1.02
PX-56	.5	1 1/16 x 2 13/16	1.32
PX-106	1.0	1 1/16 x 3 11/16	1.80
1000 WVDC			
PX-311	.0001	11/16 x 1 1/4	.66
PX-3251	.00025	11/16 x 1 1/4	.66
PX-351	.0005	11/16 x 1 1/4	.66
PX-211	.001	11/16 x 1 1/4	.66
PX-221	.002	11/16 x 1 1/4	.66
PX-231	.003	11/16 x 1 1/4	.66
PX-241	.004	11/16 x 1 1/4	.66
PX-251	.005	11/16 x 1 1/4	.66
PX-261	.006	11/16 x 1 1/4	.66
PX-271	.007	11/16 x 1 1/4	.66
PX-281	.008	11/16 x 1 1/4	.66
PX-291	.009	11/16 x 1 1/4	.66
PX-111	.01	11/16 x 1 1/4	.66
PX-121	.02	5/8 x 1 5/8	.72
PX-131	.03	11/16 x 1 3/4	.72
PX-141	.04	11/16 x 1 3/4	.72
PX-151	.05	11/16 x 1 3/4	.78
PX-161	.06	1 1/16 x 2	.81
PX-181	.08	1 1/16 x 2	.84
PX-11	.1	1 1/16 x 2	.90
PX-21	.25	1 1/16 x 2 13/16	1.20
PX-51	.5	1 1/16 x 3 11/16	1.71
1500 WVDC			
PX-2215	.002	5/8 x 1 1/4	.72
PX-2515	.005	5/8 x 1 1/4	.72
PX-1115	.01	11/16 x 1 5/8	.72
PX-1215	.02	11/16 x 1 5/8	.78
2000 WVDC			
PX-352	.0005	13/16 x 1 3/8	.75
PX-212	.001	13/16 x 1 3/8	.75
PX-252	.005	13/16 x 1 3/4	.75
PX-262	.006	13/16 x 1 3/4	.75
PX-2752	.0075	13/16 x 1 3/4	.75
PX-112	.01	13/16 x 1 3/4	.75
PX-122	.02	13/16 x 2 1/8	.81
PX-132	.03	13/16 x 2 1/8	.84
PX-142	.04	13/16 x 2 1/2	.84
PX-152	.05	13/16 x 2 1/2	.87

HASH CAPACITORS FOR AUTOMOBILE RADIOS

- HC-1—Braided leads for low R-F resistance.
- HC-2—Radial side leads.
- HC-3—Flat strap leads for minimum R-F impedance.

Cat. No.	Mfd.	WVDC	Size Inches	Net
HC-1	.5	120	7/16 x 3/4 x 2*	$0.54
HC-2	.5	120	5/16 x 3/4 x 2*	.54
HC-3	.5	120	3/4 x 1 3/4 †	.66

*Oval tube.
†Round tube.

Paper Capacitors by SPRAGUE

BATHTUB CAPACITORS

- Hermetically sealed.
- Oil-impregnated, oil-filled.
- Drawn metal can.
- Built-on mounting flanges.

400 WVDC

Cat. No.	Mfd.	Size*	Net
BP-1	.1	A	$1.32
BP-25	.25	A	1.50
BP-50	.5	B	1.59
BP-10	1.0	C	1.89
BP-21	.1+.1	A	1.98
BP-225	.25+.25	B	2.16
BP-250	.5+.5	C	2.49
BP-31	.1+.1+.1	A	2.40

600 WVDC

BP-56	.05	A	1.74
BP-16	.1	A	1.77
BP-256	.25	A	1.86
BP-506	.5	B	1.98
BP-106	1.0	C	2.25
BP-206	2.0	D	3.00
BP-2056	.05+.05	A	2.19
BP-216	.1+.1	A	2.22
BP-2256	.25+.25	B	2.25
BP-2506	.5+.5	C	2.58
BP-116	1.0+1.0	D	3.18
BP-316	.1+.1+.1	A	2.52
BP-3256	.25+.25+.25	C	2.85
BP-356	.5+.5+.5	D	3.45

1000 WVDC

BP-51	.05	A	1.83
BP-11	.1	A	1.89
BP-251	.25	A	1.95
BP-501	.5	C	2.13
BP-101	1.0	D	2.64
BP-2051	.05+.05	A	2.31
BP-211	.1+.1	A	2.40
BP-2251	.25+.25	C	2.52
BP-2501	.5+.5	D	3.27
BP-311	.1+.1+.1	B	2.76
BP-3251	.25+.25+.25	D	3.30

***SIZE OF CAPACITORS ABOVE**

A—1 13/16" long x 1" wide x ¾" high.
B—1 13/16" long x 1" wide x 7/8" high.
C—2" long x 1¾" wide x 7/8" high.
D—2" long x 2" wide x 1⅛" high.

AR AUTOMOBILE TYPES (GENERATOR)

Cat. No.	Mfd.	D. x L. In.	Net
AR-1	1.0	1 x 2 5/16	$1.05
AR-2	.5	11/16 x 1⅛	.54
AR-25	.5+.5	1 x 2 5/16	1.95
AR-Ford	.5	11/16 x 1⅞	.87

LR AUTOMOBILE TYPES (VIBRATOR)

Cat. No.	Mfd.	WVDC	T x W x L In.	Net
LR-11	.01	1600	¼ x 7/8 x 1 1/16	$1.20
LR-12	.02	1600	¼ x 7/8 x 1 1/16	1.74
LR-27	.007	1600	¼ x 7/8 x 1 1/16	1.59

SPECIAL AUTO TYPES

DOME LIGHT FILTER

Cat. No.	Mfd.	WVDC	Net
DL-1	.2	200	$2.52

GAS GAUGE FILTER

GG-5	.05	200	.72

OIL GAUGE FILTER

OG-50	.25	200	.84

FORD REPLACEMENT

P-2077	.5	200	.75

AMMETER CAPACITOR

P-3402	.5	200	.54

MOTOROLA REPLACEMENT

P-2153	.0008+.0008	1000	.48

PC TRANSMITTING TYPES

- Oil-impregnated.
- Oil-filled.
- Screwbase can.
- "Lifeguard" protective caps.
- Retains dielectric efficiency at low temperatures.
- Extremely useful in public address systems, radio transmitters, high-gain amplifiers, etc.

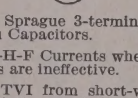
Cat. No.	Mfd.	WVDC	D. x L. In.	Net
PC-26	2.0	600	1½ x 2⅞	$3.24
PC-36	3.0	600	1½ x 3½	3.69
PC-46	4.0	600	1½ x 4½	4.26
PC-11	1.0	1000	1½ x 2⅞	3.00
PC-21	2.0	1000	1½ x 4½	3.78
PC-515	0.5	1500	1½ x 2⅝	3.51
PC-115	1.0	1500	1½ x 3⅞	3.78

OT TRANSMITTING TYPES

- Oil-impregnated and filled.
- Hermetically sealed.
- Ceramic terminals.
- "Lifeguard" protective caps.
- Rated to conform with tube and circuit design requirements.
- A favorite with radio amateurs.

Cat. No.	Mfd.	WVDC	D. x L. In.	Net
OT-26	2	600	2 x 2 15/32	$3.27
OT-11	1	1000	2 x 2 15/32	2.79
OT-21	2	1000	2 x 3 3/4	3.78
OT-41	4	1000	2 x 5 5/32	4.80
OT-515	.05	1500	2 x 2 15/32	3.03
OT-115	1	1500	2 x 2 21/32	3.51
OT-215	2	1500	2 x 4 15/32	4.80
OT-12	1	2000	2 x 4 3/32	4.53
OT-22	2	2000	2½ x 4 15/32	5.04
OT-13	1	3000	2½ x 4 23/32	9.09

HYPASS CAPACITORS



- Exclusive Sprague 3-terminal Network Feed-thru Capacitors.
- Bypass V-H-F Currents where ordinary capacitors are ineffective.
- Suppress TVI from short-wave transmitters, diathermy machines, electronic heating apparatus, etc.
- Eliminate interference caused by line-conducted radiation between neighboring TV sets.
- Install leads in series with circuit being filtered and ground the case.
- 48P-18 has female screw terminals—For filtering voltage regulator noise.
- 80P-3 has bulkhead mounting—Use where complete shielding is necessary.

Cat. No.	Mfd.	WVDC	D. x L. In.	Net
48P-18	.5	50	1 x 1 13/16	$2.28
*48P-9	.1	250	11/16 x 1 13/16	1.56
*80P-3	.1	250	11/16 x 1 13/16	1.77
46P-12	.002	600	¼ x 1⅝	1.29
46P-8	.005	600	¼ x 1⅝	1.29
47P-6	.01	600	7/16 x 1¼	1.41
47P-12	.005	1000	7/16 x 1¼	1.44
47P-13	.01	1000	7/16 x 1½	1.56
47P-14	.005	2500	1 x 1 5/16	1.74
47P-15	.01	2500	1 x 1 5/16	1.86
47P-16	.002	5000	1 x 1 5/16	1.92

*WVAC—Has female screw terminals.

CR TRANSMITTING TYPES

- Oil-filled.
- Hermetically sealed.
- High insulation resistance.
- Universal mounting.
- "Lifeguard" protective caps.
- Unconditionally guaranteed against breakdown when used as specified.

600 WVDC

Cat. No.	Mfd.	T. x W. x L. In.	Net
CR-056	.5	1 1/16 x 1 13/16 x 2¼	$2.82
CR-16	1.0	1 1/16 x 1 13/16 x 2¼	3.48
CR-26	2.0	1 1/16 x 1 13/16 x 2⅞	4.29
CR-36	3.0	1 1/16 x 1 13/16 x 3¼	4.95
CR-46	4.0	1 5/16 x 2½ x 3½	5.46
CR-66	6.0	1 5/16 x 2½ x 4¾	6.78
CR-86	8.0	1¼ x 3¾ x 3⅞	8.10
CR-106	10.0	1¼ x 3¾ x 4¾	9.09

1000 WVDC

CR-011	.1	1 1/16 x 1 13/16 x 1⅝	2.49
CR-0251	.25	1 1/16 x 1 13/16 x 2¼	2.82
CR-051	.5	1 1/16 x 1 13/16 x 2¼	2.97
CR-11	1.0	1 1/16 x 1 13/16 x 2¼	3.81
CR-21	2.0	1 1/16 x 1 13/16 x 3⅞	4.95
CR-41	4.0	1 5/16 x 2½ x 4¾	6.27
CR-81	8.0	1¼ x 3¾ x 4¾	9.09
CR-101	10.0	1¾ x 3¾ x 4¾	10.08
CR-121	12.0	2¼ x 3¾ x 4½	10.89
CR-151	15.0	2½ x 3¾ x 4¾	12.06

1500 WVDC

CR-0515	.5	1 1/16 x 1 13/16 x 2⅞	3.81
CR-115	1.0	1 1/16 x 1 13/16 x 3⅞	4.47
CR-215	2.0	1 5/16 x 2½ x 4¼	6.12
CR-415	4.0	1¼ x 3¾ x 4¾	8.43
CR-515	5.0	1¼ x 3¾ x 4¾	9.09
CR-815	8.0	2½ x 3¾ x 4¾	12.54
CR-1015	10.0	3⅝ x 3¾ x 4¾	15.03

2000 WVDC

CR-012	.1	1 5/16 x 2½ x 2½	3.96
CR-0252	.25	1 5/16 x 2½ x 2½	4.29
CR-052	.5	1 5/16 x 2½ x 2⅞	4.47
CR-12	1.0	1 5/16 x 2½ x 3½	5.46
CR-22	2.0	1¼ x 3¾ x 4¼	6.45
CR-32	3.0	1¼ x 3¾ x 4¾	7.92
CR-42	4.0	2¼ x 3¾ x 3⅞	9.09
CR-62	6.0	3⅝ x 3¾ x 4½	12.06
CR-102	10.0	4 9/16 x 3¾ x 4¾	18.33

2500 WVDC

CR-0125	.1	1 5/16 x 2½ x 2½	6.09
CR-0525	.5	1¼ x 3¾ x 3¼	6.93
CR-125	1.0	1¾ x 3¾ x 3¼	7.92
CR-225	2.0	1¾ x 3¾ x 4¾	12.87
CR-425	4.0	4 9/16 x 3¾ x 4⅝	18.00

3000 WVDC

CR-013	.1	1 5/16 x 2½ x 2½	8.43
CR-0253	.25	1 5/16 x 2½ x 2⅞	8.91
CR-053	.5	1 5/16 x 2½ x 4¼	10.08
CR-13	1.0	2¼ x 3¾ x 3⅞	12.06
CR-23	2.0	3⅝ x 3¾ x 4½	15.03
CR-43	4.0	4 9/16 x 3¾ x 4¾	22.11

4000 WVDC

CR-014	.1	2¼ x 3¾ x 2¾	10.80
CR-0254	.25	2¼ x 3¾ x 2¾	12.00
CR-054	.5	2¼ x 3¾ x 3⅝	13.80
CR-14	1.0	2¼ x 3¾ x 5⅛	17.40
CR-24	2.0	4 9/16 x 3¾ x 5⅛	23.40

5000 WVDC

CR-025	.2	1¾ x 3¾ x 3⅞	12.00
CR-055	.5	2¼ x 3¾ x 4½	15.00
CR-15	1.0	4 9/16 x 3¾ x 4⅝	20.40
CR-25	2.0	4 9/16 x 3¾ x 6	31.20

6000 WVDC

CR-0160	.1	2¼ x 3¾ x 3⅜	16.20
CR-0260	.2	1¾ x 3¾ x 4¼	18.00
CR-160	1.0	4 9/16 x 3¾ x 7½	29.40

7500 WVDC

CR-0175	.1	2¼ x 3¾ x 3⅞	17.40
CR-0275	.2	1¾ x 3¾ x 4¾	19.80

Mica Capacitors by SPRAGUE

TYPES MS AND 1FM

TYPE MS—Silvered Mica

(Std. Capacity Tolerance ±5%)

500 WVDC

Cat. No.	Mfd.	Net
MS-55	.000005	$0.27
MS-41	.00001	.24
MS-415	.000015	.24
MS-42	.00002	.24
MS-425	.000025	.24
MS-43	.00003	.24
MS-44	.00004	.24
MS-45	.00005	.24
MS-46	.00006	.24
MS-47	.00007	.24
MS-31	.0001	.24
MS-32	.0002	.27
MS-33	.0003	.33
MS-34	.0004	.39
MS-35	.0005	.42
MS-36	.0006	.48
MS-37	.0007	.51
MS-38	.0008	.57
MS-39	.0009	.60
MS-21	.001	.66
MS-22	.002	.81
MS-23	.003	1.23
MS-24	.004	1.29
MS-25	.005	1.35
MS-26	.006	1.44

300 WVDC

MS-27	.007	1.56
MS-28	.008	1.68
MS-29	.009	1.86
MS-11	.01	2.04

TYPE 1FM

(Std. Cap. Tolerance ±20%)

500 WVDC

Cat. No.	Mfd.	Net
1FM-41	.00001	$0.15
1FM-42	.00002	.15
1FM-44	.00004	.15
1FM-45	.00005	.12
1FM-475	.000075	.12
1FM-31	.0001	.12
1FM-315	.00015	.12
1FM-32	.0002	.12
1FM-325	.00025	.15
1FM-335	.00035	.15
1FM-34	.0004	.15
1FM-35	.0005	.15
1FM-37	.0007	.15
1FM-21	.001	.18
1FM-215	.0015	.18
1FM-22	.002	.24
1FM-23	.003	.30
1FM-24	.004	.33
1FM-25	.005	.36
1FM-26	.006	.39

300 WVDC

1FM-27	.007	.51
1FM-28	.008	.60
1FM-29	.009	.60
1FM-11	.01	.72

TYPES XFM, YFM, ZFM

(Std. Cap. Tolerance ±10%)

XFM—600 WVDC

Cat. No.	Mfd.	Net
XFM-45	.00005	$0.72
XFM-31	.0001	.72
XFM-32	.0002	.72
XFM-325	.00025	.72
XFM-33	.0003	.72
XFM-34	.0004	.72
XFM-35	.0005	.72
XFM-21	.001	.72
XFM-215	.0015	.72
XFM-22	.002	.78
XFM-225	.0025	.78
XFM-23	.003	.87
XFM-24	.004	.90
XFM-25	.005	.93
XFM-26	.006	1.08
XFM-27	.007	1.11
XFM-28	.008	1.14
XFM-11	.01	1.29
XFM-12	.02	1.83
XFM-13	.03	2.67

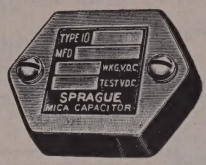
YFM—1200 WVDC

YFM-45	.00005	.96
YFM-31	.0001	.96
YFM-32	.0002	.96
YFM-325	.00025	.96
YFM-33	.0003	.96
YFM-34	.0004	.96
YFM-35	.0005	.96
YFM-21	.001	1.08
YFM-215	.0015	1.38
YFM-22	.002	1.44
YFM-225	.0025	1.68
YFM-23	.003	1.83
YFM-24	.004	1.83
YFM-25	.005	1.98
YFM-26	.006	1.98
YFM-27	.007	2.07
YFM-28	.008	2.31
YFM-11	.01	3.06

ZFM—2500 WVDC

ZFM-45	.00005	1.14
ZFM-31	.0001	1.14
ZFM-32	.0002	1.14
ZFM-325	.00025	1.32
ZFM-33	.0003	1.35
ZFM-34	.0004	1.38
ZFM-35	.0005	1.44
ZFM-21	.001	1.68
ZFM-215	.0015	2.13
ZFM-22	.002	2.49
ZFM-23	.003	2.94
ZFM-24	.004	3.39
ZFM-25	.005	3.84

TYPES 7FM, 8FM, 9FM



(Std. Cap. Tolerance ±10%)

7FM—600 WVDC

Cat. No.	Mfd.	Net
7FM-45	.00005	$0.87
7FM-31	.0001	.87
7FM-315	.00015	.87
7FM-32	.0002	.87
7FM-325	.00025	.87
7FM-35	.0005	.87
7FM-21	.001	.87
7FM-22	.002	.99
7FM-225	.0025	1.02
7FM-23	.003	1.11
7FM-24	.004	1.20
7FM-25	.005	1.26
7FM-26	.006	1.32
7FM-28	.008	1.47
7FM-11	.01	1.68
7FM-115	.015	1.83
7FM-12	.02	2.13
7FM-13	.03	2.73
7FM-14	.04	3.51
7FM-15	.05	4.26
7FM-16	.06	4.83

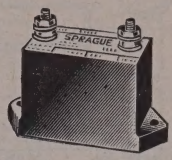
8FM—1200 WVDC

8FM-45	.00005	.96
8FM-31	.0001	.96
8FM-315	.00015	.96
8FM-32	.0002	.96
8FM-325	.00025	.96
8FM-35	.0005	.96
8FM-21	.001	1.14
8FM-22	.002	1.50
8FM-225	.0025	1.68
8FM-23	.003	1.77
8FM-24	.004	1.86
8FM-25	.005	1.98
8FM-26	.006	2.07
8FM-28	.008	2.46
8FM-11	.01	2.82
8FM-115	.015	3.48
8FM-12	.02	4.23
8FM-125	.025	4.74
8FM-13	.03	4.86

9FM—2500 WVDC

9FM-45	.00005	1.14
9FM-31	.0001	1.14
9FM-325	.00025	1.29
9FM-35	.0005	1.53
9FM-21	.001	1.74
9FM-22	.002	2.55
9FM-225	.0025	2.76
9FM-23	.003	3.06
9FM-24	.004	3.39
9FM-25	.005	3.72
9FM-26	.006	3.81
9FM-28	.008	4.11
9FM-11	.01	4.38
9FM-115	.015	4.83

TYPES 1MC AND 2MC



(Std. Capacity Tolerance ±5%)

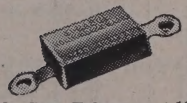
TYPE 1MC

Cat. No.	Mfd.	Peak VAC	Net
1MC-45	.00005	3000	$7.56
1MC-31	.0001	3000	7.56
1MC-315	.00015	3000	7.56
1MC-32	.0002	3000	7.56
1MC-325	.00025	3000	7.56
1MC-33	.0003	3000	7.56
1MC-34	.0004	3000	7.56
1MC-35	.0005	3000	7.56
1MC-36	.0006	3000	7.56
1MC-37	.0007	3000	7.56
1MC-38	.0008	3000	7.56
1MC-21	.001	3000	7.56
1MC-215	.0015	3000	7.56
1MC-22	.002	3000	7.56
1MC-23	.003	2000	7.56
1MC-24	.004	2000	7.56
1MC-25	.005	2000	7.56
1MC-26	.006	2000	7.56
1MC-27	.007	2000	7.56
1MC-28	.008	1500	7.56
1MC-11	.01	1000	7.56
1MC-115	.015	1000	7.56
1MC-12	.02	1000	8.58
1MC-13	.03	500	8.58
1MC-14	.04	500	8.58
1MC-15	.05	250	8.58
1MC-1	.1	250	9.06

TYPE 2MC

2MC-45	.00005	5000	10.38
2MC-31	.0001	5000	10.38
2MC-315	.00015	5000	10.38
2MC-32	.0002	5000	10.38
2MC-325	.00025	5000	10.38
2MC-33	.0003	5000	10.38
2MC-34	.0004	5000	10.38
2MC-35	.0005	5000	10.38
2MC-36	.0006	5000	10.38
2MC-37	.0007	5000	10.38
2MC-38	.0008	5000	10.38
2MC-21	.001	5000	10.38
2MC-215	.0015	5000	10.38
2MC-22	.002	5000	10.38
2MC-23	.003	3000	10.38
2MC-24	.004	3000	10.38
2MC-25	.005	3000	10.38
2MC-26	.006	3000	10.38
2MC-27	.007	3000	10.38
2MC-28	.008	2000	10.38
2MC-11	.01	2000	10.38
2MC-115	.015	2000	10.38
2MC-12	.02	2000	10.38
2MC-13	.03	1500	10.38
2MC-14	.04	1500	10.38
2MC-15	.05	1500	10.38
2MC-16	.06	1000	11.16
2MC-17	.07	1000	11.16
2MC-18	.08	500	11.52
2MC-1	.1	500	11.52

TYPES 3AFM AND 3CFM



(Std. Cap. Tolerance ±10%)

3AFM—300 WVDC

Cat. No.	Mfd.	Net
3AFM-25	.005	$0.39
3AFM-26	.006	.42
3AFM-27	.007	.57
3AFM-28	.008	.66
3AFM-11	.01	.78
3AFM-115	.015	.81

3CFM—1000 WVDC

Cat. No.	Mfd.	Net
3CFM-45	.00005	.60
3CFM-31	.0001	.60
3CFM-32	.0002	.60
3CFM-325	.00025	.60
3CFM-33	.0003	.60
3CFM-34	.0004	.60
3CFM-35	.0005	.60
3CFM-21	.001	.75
3CFM-215	.0015	.90
3CFM-22	.002	.90
3CFM-225	.0025	.90

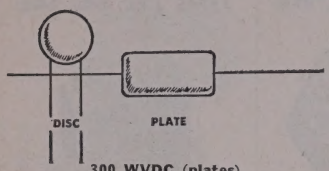
MICA CAPACITOR SIZES

Cat. Nos.	L. x W. x T. In.
MS55—MS35	21/64x13/64x7/64
MS36—MS23	25/64x25/64x9/64
MS24—MS28	25/64x25/64x11/64
MS29—MS11	1x5/8x5/16
1FM44—1FM35	51/64x15/64x7/64
1FM37—1FM23	53/64x33/64x9/64
1FM24—1FM28	53/64x33/64x11/64
1FM29—1FM11	1x5/8x5/16
3AFM Types	1x5/8x5/16
3CFM Types	1x5/8x5/16
XFM45—XFM11	1 5/8x1 1/8x11/64
XFM12—XFM13	1 5/8x1 1/8x7/16

Cat. Nos.	L. x W. x T. In.
YFM45—YFM24	1 5/8x1 1/8x11/64
YFM25—YFM11	1 5/8x1 1/8x7/16
ZFM45—ZFM22	1 5/8x1 1/8x11/64
ZFM23—ZFM25	1 5/8x1 1/8x7/16
7FM45—7FM13	1 3/4x1 5/16x7/16
7FM14—7FM16	1 3/4x1 5/16x3/4
8FM45—8FM115	1 3/4x1 5/16x7/16
8FM12—8FM13	1 3/4x1 5/16x3/4
9FM45—9FM26	1 3/4x1 5/16x7/16
9FM28—9FM115	1 3/4x1 5/16x3/4
1MC Types	2x15/16x1 19/64
2MC Types	2 1/4x1 1/4x1 13/16

Ceramic Capacitors by SPRAGUE

CERA-MITE* CERAMIC CAPACITORS



GENERAL APPLICATION TYPES

- Tiny, tough, dependable in every application.
- Low self-inductance of silvered flat-plate design means very high by-pass efficiency in all TV circuits.
- Ideal where temperature coefficient is not important, such as by-pass and coupling uses.
- Excellent replacements for foil-micas and tubular ceramics.
- Designed for 85° C (185° F) operation.
- Amazingly small in size—can be used almost anywhere.
- Heavy moisture-resistant insulating coating.

*Trade-mark.

300 WVDC (plates)
Std. Tolerance ±20%

Sprague No.	MMF	Net Each
3GAB-T47	470	21c
3GAB-D1	1000	21c
3GAB-D22	2200	27c
3GAB-D47	4700	27c
3GAB-S1	10000	39c
3GAB-S22	.022 MF	39c
3GAB-S47	.047	42c
3GAB-P1	.1	45c
3GAB-P15	.15	48c

400 WVDC (discs)
Std. Tolerance ±20%

Sprague No.	MMF	Net Each
4GA-Q1	10	
4GA-Q15	15	
4GA-Q22	22	
4GA-Q33	33	
4GA-Q47	47	
4GA-Q68	68	15c
4GA-T1	100	
4GA-T15	150	
4GA-T22	220	
4GA-T33	330	
4GA-T47	470	

500 WVDC (discs)
Std. Tolerance ±20%

Sprague No.	MMF	Net Each
5GA-V5	5	
5GA-V6	6	
5GA-V75	7.5	
5GA-V8	8	
5GA-Q1	10	15c
5GA-Q12	12	
5GA-Q15	15	
5GA-Q18	18	
5GA-Q2	20	
5GA-Q22	22	
5GA-Q25	25	
5GA-Q27	27	
5GA-Q3	30	
5GA-Q33	33	
5GA-Q39	39	15c
5GA Q47	47	
5GA-Q5	50	
5GA-Q56	56	
5GA-Q68	68	
5GA-Q75	75	
5GA-Q82	82	
5GA-Q91	91	
5GA-T1	100	
5GA-T12	120	
5GA-T13	130	15c
5GA-T15	150	
5GA-T18	180	
5GA-T2	200	
5GA-T22	220	
5GA-T24	240	
5GA-T25	250	
5GA-T27	270	
5GA-T3	300	
5GA-T33	330	
5GA-T35	350	15c
5GA-T36	360	
5GA-T39	390	
5GA-T4	400	
5GA-T47	470	
5GA-T5	500	
5GA-T56	560	
5GA-T6	600	
5GA-T68	680	
5GA-T75	750	
5GA-T8	800	
5GA-T82	820	15c
5GA-D1	1000	
5GA-D12	1200	
5GA-D13	1300	
5GA-D15	1500	
5GA-D16	1600	
5GA-D18	1800	
5GA-D2	2000	
5GA-D22	2200	
5GA-D25	2500	
5GA-D27	2700	15c
5GA-D3	3000	
5GA-D33	3300	
5GA-D39	3900	
5GA-D4	4000	
5GA-D43	4300	
5GA-D47	4700	18c
5GA-D5	5000	

1000 WVDC (discs)

Std. Tolerances: thru 680 MMF ±10%, thru 3300MMF ±20%, thru 10,000 MMF MRC.

Sprague No.	MMF	Net Each
10GA-V47	4.7	
10GA-Q1	10	
10GA-Q15	15	
10GA-Q18	18	
10GA-Q22	22	18c
10GA-Q27	27	
10GA-Q33	33	
10GA-Q39	39	
10GA-Q47	47	
10GA-Q68	68	
10GA-Q75	75	
10GA-Q82	82	
10GA-T1	100	
10GA-T12	120	
10GA-T15	150	18c
10GA-T18	180	
10GA-T2	200	
10GA-T22	220	
10GA-T25	250	
10GA-T27	270	
10GA-T3	300	
10GA-T33	330	
10GA-T39	390	18c
10GA-T47	470	
10GA-T5	500	
10GA-T56	560	
10GA-T68	680	
10GA-D1	1000	
10GA-D12	1200	30c
10GA-D15	1500	
10GA-D22	2200	
10GA-D33	3300	
*10HK-D47	4700	
*10HK-D68	6800	
*10HK-S1	10000	36c

1000 WVDC (plates)

Std. Tolerances: Type 10GAB-V47 ±.5 MMF, other types 10GAB ±20%, types 10HKB MRC.

Sprague No.	MMF	Net Each
10GAB-V47	4.7	
10GAB-Q1	10	
10GAB-Q18	18	
10GAB-Q22	22	
10GAB-Q25	25	18c
10GAB-Q33	33	
10GAB-Q39	39	
10GAB-Q47	47	
10GAB-Q68	68	
10GAB-Q75	75	
10GAB-Q82	82	
10GAB-T1	100	
10GAB-T12	120	
10GAB-T15	150	
10GAB-T18	180	
10GAB-T2	200	
10GAB-T22	220	18c
10GAB-T25	250	
10GAB-T27	270	
10GAB-T3	300	
10GAB-T33	330	
10GAB-T39	390	
10GAB-T47	470	
10GAB-T5	500	
10GAB-T56	560	
*10HKB-T68	680	
*10HKB-D1	1000	
*10HKB-D12	1200	30c
*10HKB-D15	1500	
*10HKB-D22	2200	
*10HKB-D33	3300	
*10HKB-D47	4700	
*10HKB-S1	.01 MF	36c
*10HKB-S15	.015	66c
*10HKB-S22	.022	81c

*High-K Types.

1500 WVDC (plates)
Std. Tolerances: thru 4.7 MMF ±.5 MMF, all others ±20%.

Sprague No.	MMF	Net Each
15GAB-V33	3.3	
15GAB-V47	4.7	
15GAB-V6	6	
15GAB-V75	7.5	18c
15GAB-Q1	10	
15GAB-Q12	12	
15GAB-Q15	15	
15GAB-Q18	18	
15GAB-Q2	20	
15GAB-Q22	22	
15GAB-Q33	33	
15GAB-Q47	47	18c
15GAB-Q56	56	
15GAB-Q62	62	
15GAB-Q68	68	
15GAB-Q82	82	
15GAB-T1	100	
15GAB-T15	150	
15GAB-T18	180	
15GAB-T22	220	21c
15GAB-T3	300	
15GAB-T33	330	
15GAB-T39	390	
15GAB-T47	470	

2000 WVDC (discs)
Std. Tolerances: thru 5 MMF ±.5 MMF, thru 82 MMF ±10%, thru 1000 MMF ±20%, thru 6000 MMF MRC

Sprague No.	MMF	Net Each
20GA-V33	3.3	
20GA-V5	5	
20GA-V75	7.5	
20GA-Q1	10	
20GA-Q12	12	21c
20GA-Q15	15	
20GA-Q18	18	
20GA-Q2	20	
20GA-Q22	22	
20GA-Q33	33	
20GA-Q39	39	
20GA-Q47	47	
20GA-Q56	56	
20GA-Q62	62	
20GA-Q68	68	21c
20GA-Q75	75	
20GA-Q82	82	
20GA-T1	100	
20GA-T12	120	
20GA-T15	150	
20GA-T18	180	
20GA-T2	200	
20GA-T22	220	
20GA-T3	300	21c
20GA-T33	330	
20GA-T39	390	
20GA-T47	470	
20GA-T5	500	
20GA-D1	1000	33c
*20HK-D4	4000	33c
*20HK-D5	5000	42c
*20HK-D6	6000	42c

2000 WVDC (plates)
Std. Tolerances: 5 MMF ±.5 MMF, other types 20GAB ±20%, types 20HKB MRC

Sprague No.	MMF	Net Each
20GAB-V5	5	
20GAB-Q1	10	
20GAB-Q15	15	
20GAB-Q22	22	
20GAB-Q3	30	
20GAB-Q33	33	
20GAB-Q39	39	21c
20GAB-Q47	47	
20GAB-T1	100	
20GAB-T15	150	
20GAB-T2	200	
*20HKB-T22	220	
*20HKB-T3	300	
*20HKB-T5	500	
*20HKB-D1	1000	33c
*20HKB-D5	5000	42c
*20HKB-D8	8000	42c
*20HKB-S1	10000	42c

166-54A

Ceramic Capacitors by SPRAGUE

CERA-MITE* CERAMIC CAPACITORS (CONT.)

3000 WVDC (discs)

Std. Tolerances:
1.5 MMF ±.25 MMF,
4.7 MMF ±.5 MMF,
thru 68 MMF ±10%,
thru 500 MMF ±20%

Sprague No.	MMF	Net Each
30GA-V15	1.5	24c
30GA-V47	4.7	
30GA-Q1	10	
30GA-Q12	12	
30GA-Q15	15	
30GA-Q25	25	
30GA-Q3	30	
30GA-Q39	39	
30GA-Q5	50	
30GA-Q6	60	
30GA-Q68	68	24c
30GA-T1	100	
30GA-T12	120	
30GA-T15	150	
30GA-T18	180	
30GA-T2	200	
30GA-T22	220	
30GA-T25	250	
30GA-T27	270	
30GA-T3	300	
30GA-T5	500	

3000 WVDC (plates)

Std. Tolerances:
1.5 MMF ±.25 MMF,
4.7 MMF ±.5 MMF,
other types 30GAB ±20%

Sprague No.	MMF	Net Each
30GAB-V15	1.5	24c
30GAB-V47	4.7	
30GAB-Q1	10	
30GAB-Q15	15	
30GAB-Q47	47	
30GAB-Q6	60	
30GAB-Q68	68	
30GAB-T1	100	
30GAB-T12	120	
30GAB-T15	150	
30GAB-T18	180	

5000 WVDC (discs)

Std. Tolerances:
4.7 MMF ±.5 MMF,
thru 22 MMF ±10%,
thru 500 MMF ±20%

Sprague No.	MMF	Net Each
50GA-V47	4.7	27c
50GA-Q1	10	27c
50GA-Q22	22	27c
50GA-Q47	47	27c
50GA-T1	100	27c
50GA-T22	220	27c
50GA-T33	330	33c
50GA-T5	500	60c

6000 WVDC (plates)

Std. Tolerances:
4.7 MMF ±.5 MMF,
other types 60GAB ±20%;
types 60HKB MRC

Sprague No.	MMF	Net Each
60GAB-V47	4.7	30c
60GAB-V82	8.2	30c
60GAB-Q1	10	30c
60GAB-Q12	12	30c
60GAB-Q15	15	30c
60GAB-Q18	18	30c
60GAB-Q2	20	30c
60GAB-Q22	22	30c
60GAB-Q3	30	30c
60GAB-Q33	33	30c
60GAB-Q47	47	30c
*60HKB-T1	100	30c
*60HKB-T47	470	39c

7500 WVDC (discs)

Std. Tolerances:
4.7 MMF ±.5 MMF,
thru 18 MMF ±10%,
thru 470 MMF ±20%

Sprague No.	MMF	Net Each
75GA-V47	4.7	30c
75GA-V82	8.2	30c
75GA-Q1	10	30c
75GA-Q12	12	30c
75GA-Q15	15	30c
75GA-Q18	18	30c
75GA-Q2	20	30c
75GA-Q22	22	30c
75GA-Q3	30	30c
75GA-Q33	33	30c
75GA-Q47	47	30c
75GA-Q56	56	30c
75GA-T1	100	30c
75GA-T47	470	39c

*High-K Types.

HIGH-K TYPES

Designed Specifically for Minimum Capacitance Requirements

Intended for By-pass and Coupling Applications where Additional Capacitance is Not Important

Rated at 500 WVDC—disc type.

SINGLE UNITS

Sprague No.	MF	Net Each
HK-D1	.001	15c
HK-D15	.0015	15c
HK-D2	.002	15c
HK-D22	.0022	15c
HK-D25	.0025	15c
HK-D33	.0033	15c
HK-D4	.004	15c
HK-D47	.0047	15c
HK-D5	.005	15c
HK-D68	.0068	15c
HK-S1	.01	18c
HK-S15	.015	24c
HK-S2	.02	36c
HK-S3	.03	39c

DUAL UNITS

HK-2D1	2 x .001	24c
HK-2D15	2 x .0015	24c
HK-2D2	2 x .002	24c
HK-2D22	2 x .0022	24c
HK-2D4	2 x .004	27c
HK-2D47	2 x .0047	27c
HK-2S1	2 x .01	30c
HK-2S2	2 x .02	42c

NPO TYPES

- Zero Temperature-coefficient Capacitors
- Used Where Capacitance Change with Temperature is Undesirable
- Superior to Silvered-mica Types in Stability, High "Q", and Insulation Resistance
- Rated at 500 WVDC
- Units listed below are disc capacitors, except those marked with a star (*), which are plate capacitors.

Sprague No.	MMF	Net Each
*5TCCB-V1	1.0	30c
*5TCCB-V15	1.5	
*5TCCB-V22	2.2	
*5TCCB-V33	3.3	
*5TCCB-V47	4.7	
*5TCCB-V68	6.8	
5TCC-Q1	10	
5TCC-Q15	15	
5TCC-Q2	20	
5TCC-Q22	22	
5TCC-Q25	25	
5TCC-Q33	33	
5TCC-Q39	39	33c
5TCC-Q47	47	
5TCC-Q5	50	
5TCC-Q68	68	
5TCC-Q75	75	
5TCC-T1	100	
5TCC-T12	120	36c
5TCC-T15	150	36c
5TCC-T175	175	36c
5TCC-T22	220	42c
5TCC-T27	270	48c

N750 TYPES

- Used For Temperature Compensation to Eliminate Frequency Drifts
- Negative Temperature Coefficient is 750 ppm/° C.
- Often Used in Combination with NPO Types
- Rated at 500 WVDC
- Units listed below are disc capacitors, except starred (*) item, which is a plate capacitor.

Sprague No.	MMF	Net Each
*5TCUB-V5	5.0	30c
5TCU-Q1	10	
5TCU-Q15	15	
5TCU-Q2	20	
5TCU-Q22	22	
5TCU-Q25	25	
5TCU-Q33	33	
5TCU-Q47	47	30c
5TCU-Q68	68	
5TCU-Q75	75	
5TCU-T1	100	
5TCU-T15	150	
5TCU-T2	200	
5TCU-T22	220	
5TCU-T33	330	

SPRAGUE COLOR-CODE INDICATOR

Deciphers the color coding on manufacturers' type molded tubular capacitors in a jiffy.

Simply flick the dials to the color bands and read the capacitance, tolerance, and voltage directly on indicator.

Pocket-size, made of plastic, it's much handier than wall charts or tables.

Sprague No. C-751—Net each **15c**

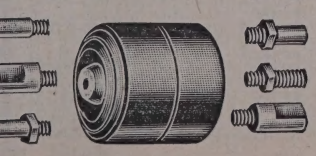
SPRAGUE "T-C" RULE FOR CERAMICS

- Quickly finds the values of N750 and NPO temperature compensating capacitors which can be connected in parallel to equal a capacitor of desired intermediate temperature coefficient of a specific capacitance.
- Every service technician should have one of these handy sliding rules.

Sprague No. C-753—Net each **15c**

SPRAGUE UNIVERSAL DOORKNOB CERAMIC CAPACITOR (MOLDED PLASTIC)

WITH SCREW-IN TERMINALS TO FIT ALL TV SETS



- A new idea in high voltage ceramic capacitor design.
- Molded in non-inflammable, moisture-resistant thermosetting plastic.
- Molded guard rings lengthen surface creepage path.
- **20DK-T5** packaged two to a clear plastic box with giant assortment of screw-in terminals to fit all TV sets.
- **30DK-T5** comes with plain screw-in terminals to meet all 27" TV set requirements

Sprague No.	MMF	W.V.D.C.	Diameter x Length	Net Price
20DK-T5	500	20,000	1" x 31/64"	$1.11
30DK-T5	500	30,000	1 5/16" x 1 1/4"	1.80

166X-54A

Mallory Electrolytic Capacitors

FP AND WP CAPACITORS

For top chassis mounting in filter and audio bypass circuits and TV applications. Extremely dependable under heavy ripple current and high surge voltage. All WP and FP capacitors are designed for high temperature (85°C) operation, except as noted in table. Single, dual, triple and quad section units encased in compact rubber sealed aluminum cases with self-contained mounting feature, **Type FP** is supplied with Fabricated Plate (metallized cotton gauze) anodes, **Type WP** with etched plate anodes. Special internal design provides low RF impedance and minimum coupling between sections. Case at negative potential. Supplied insulating washer may be used where negative ground is not wanted. For twist-prong mounting through chassis slots. Hardware listed in third column of this page may also be used.

FP-WP—SINGLES

Mallory No.	Cap. Mfd.	Wkg. V. DC	*	Net Each
WP510	.5Z/15750†	3V	B	$1.32
WP540	1.0Z/60†	3V	H	2.40
WP505	.10Z/30†	3V	A	1.20
WP035	225	15	A	1.05
WP039	1000	15	C	1.53
WP041	2000	15	F	2.07
WP042	3000	15	H	2.10
WP052	40	25	A	.81
WP055	100	25	B	.96
WP057	500	25	C	1.53
WP059	1000	25	F	2.13
WP063	4	50	A	.75
WP065	500	50	F	1.59
WP068	1500	50	I	2.31
FP113	30	150	A	.93
FP115	50	150	B	.99
FP116	100	150	C	1.20
FP116.5	120	150	D	1.23
FP117	150	150	D	1.29
FP118	200	150	G	1.47
FP119	300	150	H	1.68
FP125	15	250	A	.93
FP128	80	300	D	1.53
FP129.1	100	300	D	2.10
FP131	150	300	H	2.10
FP135	30	350	B	1.14
FP137	50	350	C	1.26
FP137.2	60	350	D	1.32
FP138	80	350	G	1.71
FP140	125	350	H	2.37
FP142	10	450	A	.93
FP143	15	450	B	1.02
FP144	20	450	B	1.08
FP145	30	450	C	1.17
FP146	40	450	C	1.23
FP148	60	450	G	1.68
FP149	80	450	G	1.83
FP150	100	450	H	2.07
FP171	10	500	B	.96
FP173	20	500	B	1.11
FP175	30	500	C	1.20
FP177	40	500	D	1.50
FP187	90	500	H	2.10

FP-WP—DUALS

Mallory No.	Capacity Mfd.	Working Volts DC	*	Net Each
WP204	250-1000	10-6	F	$1.71
WP205	.5Z-2.5Z/15750†-60†	12-6V	I	2.16
WP200	1000-1000	15-15	G	2.64
WP201.1	40-40	25-25	B	.93
WP202.1	50-50	50-50	B	1.02
WP202.5	100-100	50-50	B	1.26
WP206	50-150	150-25	C	1.32
FP208	20-20	150-150	B	1.02
FP211	30-30	150-150	B	1.11
FP210	40-20	150-150	B	1.08
FP212	40-40	150-150	C	1.14
FP213	50-30	150-150	B	1.20
FP214	50-50	150-150	C	2.04
FP214.5	75-75	150-150	F	1.56
FP216	80-40	150-150	D	1.38
FP215	125-100	150-150	G	2.04
F'216.1	200-5	150-150	G	1.65
FP216.3	200-150	150-150	I	2.25
FP216.4	200-200	150-150	I	2.40
FP216.6	60-60	200-200	D	1.53
FP216.8	40-25	250-150	C	1 29
FP217	20-20	250-250	B	1.14
FP221	40-40	250-250	D	1.50
FP217.7	150-150	250-250	I	3.09
FP217.8	20-60	300-250	D	1.65
FP217.9	75-75	300-300	H	2.28
FP218	120-20	300-300	H	2.40
FP225	15-15	350-350	B	1.35
FP227	20-20	350-350	C	1.38
FP227.3	30-30	350-350	D	1.74
FP227.5	80-40	350-350	H	2.16
FP227.6	80-80	350-350	I	2.82
FP229	35-100	400-50	D	1.56
FP229.4	80-60	400-400	I	2.82
FP229.3	75-75	400-400	I	2.91
FP229.5	120-40	400-400	I	3.15
FP229.6	50-100	450-50	G	1.80
FP244	80-50	450-50	H	2.10
FP229.8	80-100	450-50	H	2.25
FP229.9	30-200	450-150	H	2.10
FP230	20-50	450-250	D	1.68
FP230.3	40-10	450-300	D	1.56
FP235	20-80	450-350	G	2.19
FP230.6	10-100	450-350	H	2.40
WP230.9	5-5	450-450	B	1.02
FP231	10-10	450-450	B	1.14
FP231.3	20-10	450-450	C	1.32
FP234	20-20	450-450	D	1.53
FP237	30-30	450-450	G	1.83
FP238	40-40	450-450	H	2.07
FP239	50-40	450-450	H	2.19
FP240	50-50	450-450	H	2 31
FP242	60-20	450-450	H	2.10
FP242.5	60-60	450-450	I	2.70
FP245	80-10	450-450	H	2.16
FP245.2	80-20	450-450	H	2.34
FP245.3	80-30	450-450	I	2.49
FP247	100-40	450-450	I	2.91
FP250	40-80	475-200	G	2.19
FP255	20-100	475-300	H	2.37
FP256	20-100	475-400	I	2.70
FP258	15-15	475-475	C	1.41
FP259	30-10	475-475	D	1.56
FP260	40-10	475-475	H	1.86
FP262	40-40	475-475	H	2.58
FP263	60-40	475-475	I	2.73
FP264.5	80-40	475-475	I	3.03
FP266	80-50	475-475	I	3.12
FP277	60-80	500-150	H	2.25
FP280	40-50	500-200	G	1.98
FP284	30-30	500-500	G	1.95
FP288	40-40	500-500	H	2.58
.....	.....	.....	...	.....
.....	.....	.....	...	.....

FP-WP—TRIPLES

Mallory No.	Capacity Mfd.	Working Volts DC	*	Net Each
WP520	40-40-40	25-25-25	B	$1.29
WP301	30-30-30	50-50-50	B	1.29
FP303	20-250-100	150-15-15	F	1.74
FP312	100-50-25	150-50-25	D	1.80
WP302.1	15-15-1200	150-150-2	B	1.80
FP302.4	80-20-200	150-150-10	F	1.71
FP302.7	80-30-300	150-150-10	F	1.89
FP302.8	100-80-200	150-150-10	G	2.16
FP302.9	80-20-100	150-150-15	F	1.68
FP306	40-20-20	150-150-25	B	1.38
FP307	40-20-100	150-150-25	C	1.50
FP304	40-20-200	150-150-25	C	1.62
FP310	40-40-20	150-150-25	C	1.44
FP314	40-40-200	150-150-25	D	1.68
WP308.1	40-40-250	150-150-25	D	1.89
FP309	50-30-100	150-150-25	C	1.62
FP311	50-50-20	150-150-25	D	1.59
FP311.1	80-40-25	150-150-25	D	1.65
FP311.15	80-40-300	150-150-25	G	2.22
FP311.2	20-20-20	150-150-150	B	1.38
FP311.4	40-20-20	150-150-150	C	1.44
FP311.5	40-40-40	150-150-150	D	1.56
FP311.55	50-20-20	150-150-150	C	1.53
FP311.6	50-40-10	150-150-150	C	1.53
FP311.65	50-50-50	150-150-150	D	1.80
FP311.67	80-30-10	150-150-150	D	1.65
FP311.7	80-40-20	150-150-150	F	1.74
FP311.9	120-120-40	150-150-150	H	2.43
FP312.5	200-100-60	150-150-150	I	2.73
FP318.3	30-20-40	200-200-150	C	1.62
FP318.5	20-20-20	200-200-200	C	1.50
FP318 7	30-20-20	200-200-200	C	1.62
FP319	80-40-50	250-150-50	G	1.98
FP319 5	90-90-20	250-250-50	H	2.76
FP319.8	20-20-20	250-250-250	B	1.56
FP320	40-20-20	250-250-250	F	1.74
FP321	40-20-20	250-250-250	D	1.74
FP326	100-60-20	300-150-25	H	2.52
FP326.2	20-150-80	300-150-150	H	2.37
FP326.4	60-30-30	300-250-250	G	2.25
FP335	100-60-20	300-250-250	H	2.94
FP336	200-60-20	300-250-250	I	3.48
FP326.6	100-10-60	300-300-50	G	2.43
WP326.8	4-100-40	350-25-25	B	1.35
FP327	40-100-25	350-50-25	F	1.92
WP327.2	20-50-100	350-100-75	D	1.98
FP327.4	125-5-100	350-200-75	I	3.18
FP327.6	30-20-100	350-250-50	D	1.95
FP331	30-30-20	350-300-25	D	1.89
FP327.8	30-50-20	350-300-25	G	2.16
FP328	15-10-20	350-350-25	B	1.50
WP329.1	20-4-100	350-350-25	D	1.56
FP330	30-20-20	350-350-25	D	1.86
FP330.15	10-5-30	350-350-50	B	1.32
FP330.2	10-5-150	350-350-50	C	1.62
FP330.21	20-5-150	350-350-50	D	1 77
FP330.25	30-20-100	350-350-150	G	2.40
FP330.3	20-10-5	350-350-250	B	1.53
FP330.5	10-10-10	350-350-350	B	1.44
FP330.7	30-20-10	350-350-350	D	1.95
FP330.9	60-50-50	350-350-350	I	2.94
FP331.3	80-60-60	350-350-350	I	3.33
FP331.6	90-40-20	350-350-350	I	3.15
FP333	10-50-30	400-350-25	F	1.86
FP333.2	80-40-100	400-400-50	I	3.00
FP333.3	80-40-150	400-400-50	I	3.09
FP333.5	20-10-40	400-400-350	E	2.04
FP333.6	20-20-10	400-400-350	D	1.80
FP333.7	60-30-20	400-400-350	H	2.73
FP333.8	80-20-10	400-400-350	H	2.58
FP333.9	90-10-5	400-400-400	H	2.64
FP342	40-40-130	450-150-50	G	2.22
FP343	40-100-50	450-150-50	H	2.37
WP339.5	10-50-100	450-150-75	D	1.95
FP340	20-50-100	450-150-75	F	2.04
FP341	40-90-50	450-150-150	H	2.40
FP341.3	20-80-50	450-200-150	G	2.16
FP341.5	20-60-100	450-250-25	G	2.19
FP341.8	10-80-80	450-250-250	H	2.61
FP342.2	5-80-40	450-300-300	H	2.49
FP342.5	30-15-40	450-350-25	F	1.92
FP342.7	30-40-50	450-350-25	E	2.22
FP343.1	15-20-20	450-350-250	D	1.77
FP343.4	20-15-15	450-350-350	D	1.95
FP343.6	20-40-10	450-350-350	G	2.10
FP343.9	10-30-150	450-400-5	D	1.80
FP344.2	60-80-20	450-400-250	I	3.27
FP344.4	4-40-40	450-400-300	G	2.22
FP344.5	10-30-40	450-400-300	G	2.19
FP345.2	10-10-20	450-450-25	B	1.44
FP345.3	40-20-20	450-450-25	G	2.10
FP345.4	80-10-125	450-450-25	H	2.64
FP345.5	15-15-40	450-450-25	C	1.65
FP345.8	20-20-20	450-450-25	D	1.83
FP346	40-40-20	450-450-25	H	2.37
FP364	80-40-100	450-450-25	I	3.06
FP366	20-10-50	450-450-50	D	1.71
FP366.5	30-10-150	450-450-50	G	2.10
FP367	35-25-100	450-450-50	H	2.37
FP367.5	40-30-25	450-450-50	G	2.25
FP368	60-40-75	450-450-50	I	2.76
FP368.3	80-20-100	450-450-50	I	2.88
FP386.6	30-30-125	450-450-75	H	2.70
FP369.1	40-40-40	450-450-150	H	2.49
FP370	40-10-80	450-450-200	H	2.34
FP375	40-40-100	450-450-200	I	2.97
FP375.2	15-10-120	450-450-300	I	2.70
FP375.4	40-40-60	450-450-350	I	2.94
FP375.5	40-40-80	450-450-350	I	3.33
FP375.6	60-20-40	450-450-350	I	2.94
FP375.7	20-10-15	450-450-400	D	1.86
FP375.8	10-10-10	450-450-450	C	1.56
FP376.1	15-15-10	450-450-450	D	1.77
FP376.3	20-10-10	450-450-450	D	1.74
FP376.5	20-20-20	450-450-450	G	2.16
FP376.7	30-30-30	450-450-450	H	2.67
FP376.8	40-40-10	450-450-450	H	2.49
FP376.9	40-40-20	450-450-450	H	2.67
FP377	40-40-40	450-450-450	I	2.54
FP377.2	50-40-30	450-450-450	I	2.94
FP377.4	60-10-10	450-450-450	H	2.94
FP377.6	60-30-10	450-450-450	H	2.70
FP378	80-40-20	450-450-450	I	3.24
FP379.1	20-50-20	475-50-25	D	1.65
FP381.1	80-80-50	475-150-50	I	2.91
FP382.1	40-40-100	475-200-100	H	2.46
FP384	20-20-40	475-300-25	F	1.86
FP384.2	10-4-40	475-350-300	F	1.80
FP384.5	10-45-100	475-450-50	H	2.19
FP384.7	40-40-25	475-450-50	H	2.64
FP385	10-40-100	475-450-200	H	2.52
FP385.5	40-80-10	475-450-450	I	3.30
FP386	10-10-5	475-475-25	C	1.47
FP387.1	10-10-150	475-475-50	D	1.80
FP388.1	25-20-10	475-475-50	D	1.77

*Size. †Cycles.

49-54A

Mallory Electrolytic Capacitors

FP-WP—TRIPLES—CONTINUED

Mallory No.	Capacity Mfd.	Working Volts DC	*	Net Each
FP389.1	20-10-100	475-475-400	I	3.15
FP391.1	20-20-60	475-475-450	I	2.91
FP394	10-10-10	475-475-475	D	1.62
FP396	30-30-20	475-475-475	H	2.67
FP396.1	40-20-20	475-475-475	H	2.85
FP396.12	40-30-10	475-475-475	H	2.70
FP396.14	40-30-30	475-475-475	I	3.09
FP396.2	40-10-10	475-475-475	G	2.31
FP397	40-35-10	475-475-475	H	2.73
FP398	10-40-40	500-450-450	H	2.49

FP-WP—QUADS

Catalog No.	Capacity Mfd.	Working Volts DC	* *	Net Each
FP403	50-20-150-30	150-150-15-15	F	$1.92
FP405	20-20-160-40	150-150-25-25	F	1.92
WP405.5	40-50-160-40	150-150-25-25	F	2.01
WP406	40-40-200-100	150-150-25-25	F	2.13
FP407	30-20-20-200	150-150-150-10	F	1.86
FP407.5	40-40-20-200	150-150-150-10	F	1.92
FP408	60-40-20-200	150-150-150-10	F	2.07
FP408.5	80-80-10-200	150-150-150-10	G	2.34
FP409	40-40-30-20	150-150-150-25	F	1.86
FP409.4	50-20-20-200	150-150-150-25	F	2.10
FP410	50-50-50-20	150-150-150-25	G	2.13
FP410.3	60-40-20-20	150-150-150-25	F	1.98
FP410.7	60-60-10-60	150-150-150-25	G	3.10
FP411	80-40-30-100	150-150-150-25	G	2.22
FP411.3	80-40-40-20	150-150-150-25	G	2.10
FP411.32	80-40-40-40	150-150-150-25	G	2.16
FP411.4	80-50-50-25	150-150-150-25	G	2.28
FP411.5	100-90-60-200	150-150-150-25	H	2.97
FP411.7	125-125-40-100	150-150-150-25	I	2.91
FP412	100-80-60-40	150-150-150-150	H	2.79
FP412.2	40-40-50-80	250-250-150-50	G	2.46
FP417	100-40-80-20	300-50-25-25	G	2.73
FP417.3	10-200-140-30	300-150-150-150	I	3.06
FP417.8	10-200-200-30	300-150-150-150	I	3.21
FP418.3	120-20-100-20	300-250-50-25	I	3.03
FP419	200-20-100-20	300-250-50-25	I	3.48
FP419.1	150-20-10-250	300-300-250-50	I	3.63
FP419.2	40-30-20-50	300-300-300-25	G	2.49
FP419.7	60-40-20-50	300-300-300-25	H	2.79
FP419.35	60-30-10-60	300-300-300-50	G	2.52
FP419.4	100-10-200-30	300-300-150-150	I	3.54
FP419.5	40-40-30-20	300-300-300-300	H	2.91
FP419.53	60-40-10-10	300-300-300-300	H	2.73
FP419.56	60-60-30-160	350-150-150-25	H	2.76
FP419.58	20-60-160-40	350-200-25-25	G	2.40
FP414	15-80-40-200	350-200-200-25	H	2.70
FP416	40-40-20-20	350-300-300-25	H	2.73
FP419.6	40-10-100-25	350-350-25-25	F	2.25
FP419.62	60-40-100-40	350-350-25-25	G	2.28
FP419.64	40-20-50-25	350-350-150-25	G	2.49
FP419.66	60-40-60-20	350-350-250-150	I	3.24
FP419.68	15-15-15-15	350-350-300-25	F	2.07
FP419.8	35-35-10-20	350-350-300-25	G	2.49
FP419.82	20-10-5-10	350-350-350-25	F	1.86
FP419.84	30-10-5-200	350-350-350-25	F	2.28
FP419.86	40-20-5-10	350-350-350-25	G	2.28
FP419.88	40-30-15-30	350-350-350-25	G	2.70
FP419.3	40-40-20-20	350-350-350-25	H	2.79
FP419.9	15-15-15-50	350-350-350-50	F	2.25
FP420.2	50-40-40-160	350-350-350-50	I	3.45
FP420.23	100-10-10-20	350-350-350-50	H	3.09
FP420.26	100-40-30-50	350-350-350-50	I	3.93
FP420.29	90-30-5-100	350-350-350-75	I	3.54
FP420.32	20-10-5-60	350-350-350-200	G	2.19
FP420.35	40-20-20-10	350-350-350-350	G	2.61
FP420.38	40-40-40-40	350-350-350-350	I	3.60
FP420.21	40-120-10-150	400-250-250-50	I	3.48
FP420.44	30-40-50-200	400-300-250-150	I	3.60
FP420.47	20-50-40-80	400-350-350-50	H	3.00
FP420.5	30-60-20-100	400-350-350-50	I	3.00
FP420.53	20-5-20-20	400-400-25-25	F	1.83
FP420.56	50-25-100-20	400-400-50-25	H	2.79
FP420.6	80-40-100-20	400-400-50-25	I	3.36
FP420.8	20-10-10-25	400-400-100-25	F	1.86
FP421	5-5-50-80	400-400-300-250	H	2.79
FP421.2	60-40-40-10	400-400-350-50	I	3.45
FP421.4	30-30-15-20	400-400-400-25	H	2.58
FP421.6	80-40-30-40	400-400-400-25	I	3.57
FP421.8	40-40-40-150	400-400-400-50	I	3.42
FP422.1	20-80-20-50	450-200-200-50	G	2.46
FP422.7	60-80-40-20	450-250-250-150	I	3.39
FP422.9	10-100-20-20	450-300-300-300	H	3.15
FP413X	40-40-40-20	450-300-300-150	H	2.94
FP423.4	10-40-100-100	450-350-250-50	H	3.33
FP424.1	10-100-10-20	450-350-350-25	H	3.12
FP425.1	80-10-40-30	450-400-300-300	I	3.48
FP426	20-15-20-20	450-450-25-25	F	2.07
FP426.5	20-20-60-100	450-450-150-25	G	2.55
FP426.9	40-40-125-125	450-450-150-25	I	3.42
FP427.5	10-10-60-100	450-450-200-50	G	2.31
FP427.6	35-25-20-100	450-450-200-50	H	3.99
FP427.7	10-10-10-50	450-450-300-25	F	1.89
FP427.9	20-20-20-10	450-450-350-350	H	2.49
FP428	40-10-35-10	450-450-350-350	H	2.76
FP428.4	40-40-30-30	450-450-350-350	I	3.54
FP424	15-15-10-20	450-450-450-25	F	2.10
FP428.9	30-30-10-125	450-450-450-25	H	2.58
FP432	40-10-10-250	450-450-450-25	H	2.82
FP431	40-15-10-25	450-450-450-25	G	2.46
FP430.2	40-20-20-25	450-450-450-25	H	2.76
FP436	40-20-20-40	450-450-450-25	H	2.79
FP429	40-30-10-20	450-450-450-25	H	2.70
FP430.6	40-40-40-40	450-450-450-25	I	3.30
FP430.9	60-40-40-10	450-450-450-25	I	3.60
FP430.95	60-50-5-20	450-450-450-25	I	3.21
FP437	20-20-20-100	450-450-450-50	G	2.73
FP431.2	40-40-10-25	450-450-450-50	H	2.82
FP431.3	40-40-10-50	450-450-450-50	I	2.13
FP431.4	60-40-10-25	450-450-450-50	I	3.15
FP431.7	40-40-10-100	450-450-450-100	I	3.18
FP433	60-10-10-20	450-450-450-150	H	2.76
FP432.4	40-40-30-10	450-450-450-200	I	3.21
FP432.9	40-20-10-100	450-450-450-250	I	3.51
FP433.2	40-10-10-40	450-450-450-350	H	2.85
FP433.4	40-20-20-20	450-450-450-350	H	3.00
WP433.6	5-5-5-5	450-450-450-450	F	1.80
FP434	10-10-10-10	450-450-450-450	F	2.01
FP434.5	20-10-10-10	450-450-450-450	F	2.22
FP444	20-20-20-20	450-450-450-450	H	2.82
FP444.4	30-15-15-15	450-450-450-450	H	2.67
FP444.5	30-20-20-10	450-450-450-450	H	2.76
FP444.6	30-30-15-10	450-450-450-450	H	2.82
FP444.8	30-30-20-20	450-450-450-450	H	3.12
FP444.9	30-30-30-15	450-450-450-450	I	3.18
FP445	35-35-10-5	450-450-450-450	H	2.76
FP446	40-35-10-10	450-450-450-450	H	2.88
FP447	40-40-20-20	450-450-450-450	I	3.33
FP447.5	40-40-30-30	450-450-450-450	I	3.63
FP448	60-20-20-20	450-450-450-450	I	3.39
FP448.5	60-30-10-2	450-450-450-450	H	3.06
FP449	70-10-10-5	450-450-450-450	H	2.85
FP450	80-10-10-10	450-450-450-450	I	3.03
FP451	10-100-10-100	475-300-300-25	H	2.94
FP452	20-80-20-10	475-300-300-300	H	3.00
FP453	20-40-80-100	475-350-200-100	I	3.27
FP453.4	10-40-80-100	475-350-300-100	I	3.33
FP453.8	10-30-5-80	475-350-350-50	G	2.22
FP454.2	20-60-40-10	475-350-350-350	H	3.12
FP454.6	10-40-4-100	475-400-350-50	G	2.43
FP456	25-20-40-100	475-450-300-50	H	2.97
FP456.5	10-60-30-125	475-450-400-50	I	3.33
FP455	10-50-30-30	475-450-450-25	H	2.85
FP459	10-40-10-100	475-450-450-50	G	2.58
FP461	15-15-80-40	475-475-300-50	H	2.88
FP463	50-30-20-20	475-475-300-300	I	3.42
FP464.9	40-10-4-40	475-475-350-300	H	2.97
FP467	20-10-20-100	475-475-450-25	G	2.52
FP474	10-10-10-10	475-475-475-475	F	2.10
FP474.5	20-20-10-10	475-475-475-475	G	2.61
FP475	20-20-20-20	475-475-475-475	H	3.12
FP475.5	40-10-10-10	475-475-475-475	H	2.79
FP476	40-20-10-10	475-475-475-475	H	3.06
FP495	40-40-8-8	500-500-500-500	I	3.42

*SIZES

Key	Diameter	Length	Key	Diameter	Length
A	¾"	2"	F	1⅜"	2"
B	1"	2"	G	1⅜"	2½"
C	1"	2½"	H	1⅜"	3"
D	1"	3"	I	1⅜"	4"
E	1"	4"			

HARDWARE CAPACITOR

For FP or WP capacitors use MP, BP, PS and MW-100 units. For TC, FP, WP and other tubulars use YR brackets for vertical mtg. or TH spring clips for horizontal mtg.

Mallory No.	Fig.	Size, Inches	Net	Mallory No.	Fig.	Size, Inches	Net
MP-2	A‡	¾	3c	TH-13	D	⅜	3c
MP-4	A‡	1	3c	TH-15	D	½-9/16	3c
MP-6	A‡	1⅜	3c	TH-17	D	⅝-11/16	3c
BP-2	B†	¾	3c	TH-19	D	¾-11/16	3c
BP-4	B†	1	3c	TH-21	D	⅞-15/16	3c
BP-4A	B†	1	3c	TH-23	D	1-1 1/16	3c
BP-6	B†	1⅜	3c	TH-25	D	1⅜-1 7/16	6c
PS-4	C	1	42c	MW-100	F	Mtg. Wrench	#
PS-6	C	1⅜	54c	CE-1**	....	.....	6c
PSC-4	Ret.	Clamp	6c	CE-3**	....	.....	6c
VR-1	E	1-1 1/16	9c	CE-4**	....	.....	6c
VR-3	E	1⅜-1 7/16	9c	CE-5**	....	.....	6c
VR-4	E	1½-1 9/16	12c	CE-6**	....	.....	6c
VR-6	E	1¾-1 13/16	15c	CE-7**	....	.....	6c
VR-8	E	2-2 1/16	18c	CE-8**	....	.....	9c
VR-10	E	2½	21c	CE-9**	....	.....	6c
				CE-10**	....	.....	9c

*Size. †Cycles. ‡Metal. †Bakelite. **CE insulating sleeves, closed end type, #Net Each $1.05.

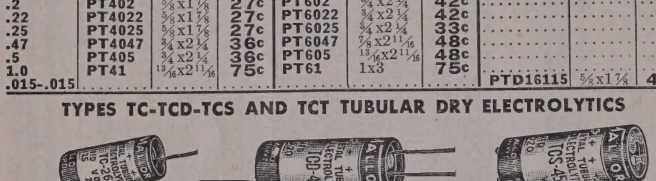
Mallory Tubular Capacitors

PLASCAP TUBULAR CAPACITORS

Triple-Sealed plastic. Unique impregnant results in stable capacity, low power factor and high insulation resistance over a wide range of temperatures. Rated 85° C.

Cap. Mfd.	400 Volts, D.C. Mall. No.	Size D. x L.	Net Each	600 Volts, D.C. Mall. No.	Size D. x L.	Net Each	1600 Volts, D.C. Mall. No.	Size D. x L.	Net Each
.001				PT621	5/16x1	15c	PT1621	3/8x1	33c
.002				PT622	5/16x1	15c	PT1622	3/8x1	33c
.0022				PT6222	5/16x1	15c	PT16222	3/8x1 1/4	33c
.003				PT623	5/16x1	15c	PT1623	3/8x1 1/4	33c
.0033				PT6233	5/16x1	15c	PT16233	3/8x1 1/4	33c
.004				PT624	3/8x1	15c	PT1624	3/8x1 1/4	33c
.0047				PT6247	3/8x1	15c	PT16247	3/8x1 1/4	33c
.005				PT625	3/8x1	15c	PT1625	3/8x1 1/4	33c
.006				PT626	3/8x1	15c	PT1626	7/16x1 1/4	33c
.007							PT1627	7/16x1 1/4	33c
.0075							PT16275	7/16x1 1/4	33c
.008							PT1628	7/16x1 1/4	36c
.01	PT411	3/8x1	15c	PT611	3/8x1 1/4	18c	PT1611	1/2x1 1/4	36c
.015							PT16115	1/2x1 1/2	36c
.02	PT412	3/8x1 1/4	15c	PT612	7/16x1 1/4	18c	PT1612	1/2x1 1/2	36c
.022	PT4122	3/8x1 1/4	18c	PT6122	7/16x1 1/4	18c	PT16122	5/8x1 7/8	36c
.03	PT413	7/16x1 1/4	18c	PT613	1/2x1 1/4	21c	PT1613	5/8x1 7/8	36c
.033	PT4133	7/16x1 1/4	18c	PT6133	1/2x1 1/4	21c			
.04				PT614	1/2x1 1/2	21c	PT1614	5/8x1 7/8	42c
.047	PT4147	1/2x1 1/4	18c	PT6147	1/2x1 1/2	24c			
.05	PT415	1/2x1 1/4	18c	PT615	1/2x1 1/2	24c	PT1615	5/8x1 7/8	42c
.06				PT616	1/2x1 1/2	24c			
.1	PT401	1/2x1 1/2	21c	PT601	5/8x1 7/8	27c			
.15	PT4015	5/8x1 7/8	24c						
.2	PT402	5/8x1 7/8	27c	PT602	3/4x2 1/4	42c			
.22	PT4022	5/8x1 7/8	27c	PT6022	3/4x2 1/4	42c			
.25	PT4025	5/8x1 7/8	27c	PT6025	3/4x2 1/4	33c			
.47	PT4047	3/4x2 1/4	36c	PT6047	7/8x2 11/16	48c			
.5	PT405	3/4x2 1/4	36c	PT605	11/16x2 11/16	48c			
1.0	PT41	13/16x2 11/16	75c	PT61	1x3	75c			
.015-.015							PTD16115	5/8x1 7/8	48c

TYPES TC-TCD-TCS AND TCT TUBULAR DRY ELECTROLYTICS



Designed for use where small size and long life are desirable. All units except * are satisfactory for 85° C. operation. Encased in hermetically sealed aluminum tubes with external insulating sleeve. **Type TC** are single section units with 3" bare solid copper tinned leads. **Type TCD** are dual common negative units with 3" bare solid copper tinned leads. **Type TCS** are dual separate section units supplied with soldering lugs and TH clips. **Type TCT** are Triple Common Negative.

TYPE TC SINGLE SECTION

Mall. No.	Cap. Mfd.	D.C. W.V.	Size, In. Dia. x Lg.	Net Each
310	1000	3	15/16 x 1 3/4	$1.02
605	500	6	15/16 x 1 3/4	.93
610	1000	6	15/16 x 2	1.14
1502	200	15	15/16 x 1 1/2	.84
1505	500	15	15/16 x 2	1.05
22	10	25	9/16 x 1 1/4	.60
26	25	25	9/16 x 1 1/4	.60
29	50	25	11/16 x 1 1/2	.66
2501	100	25	11/16 x 1 3/4	.81
2505	500	25	1 1/16 x 2 7/8	1.38
302	2	50	9/16 x 1 1/4	.54
30	5	50	9/16 x 1 1/4	.60
31	1	50	9/16 x 1 1/4	.54
32	10	50	9/16 x 1 1/4	.60
36	25	50	11/16 x 1 1/4	.63
39	50	50	13/16 x 1 1/4	.72
3501	100	50	13/16 x 2	.84
40	5	150	9/16 x 1 1/4	.60
41	8	150	11/16 x 1 1/4	.63
42	10	150	11/16 x 1 1/4	.63
43	12	150	11/16 x 1 1/2	.66
44	16	150	11/16 x 1 1/2	.69
45	20	150	13/16 x 1 1/2	.72
47	30	150	13/16 x 1 1/2	.78
48	40	150	15/16 x 1 3/4	.81
49	50	150	15/16 x 1 3/4	.84
492	80	150	15/16 x 2 1/4	.96
495	150	150	1 1/16 x 2 7/8	1.14
50X	5	250	11/16 x 1 1/4	.63
51	8	250	11/16 x 1 3/4	.69
52	10	250	11/16 x 1 3/4	.72
53	12	250	13/16 x 1 3/4	.75
54	16	250	13/16 x 1 3/4	.78
55	20	250	13/16 x 1 3/4	.81
58	40	250	1 1/16 x 1 3/4	.93
59	50	250	1 1/16 x 2	1.02
60	5	350	11/16 x 1 3/4	.63
61	8	350	13/16 x 1 3/4	.72
62	10	350	13/16 x 1 3/4	.75
63	12	350	15/16 x 1 3/4	.78
64	16	350	15/16 x 1 3/4	.84
65	20	350	15/16 x 1 3/4	.87
68	60	350	1 1/16 x 2 7/8	1.17
70	5	450	11/16 x 1 3/4	.72
71	8	450	13/16 x 1 3/4	.75
72	10	450	13/16 x 1 3/4	.78
73	12	450	13/16 x 1 3/4	.81
74	16	450	15/16 x 1 3/4	.84
75	20	450	15/16 x 1 3/4	.87
76	40	450	1 1/16 x 2 7/8	1.17
77	30	450	1 1/16 x 2 1/4	1.02
78	40	450	1 1/16 x 2 7/8	1.08
*81	10	500	15/16 x 1 3/4	.81
82	10	500	1 1/16 x 2 15/16	1.62
*83	20	500	1 1/16 x 2 15/16	.96
*84	30	500	1 1/16 x 2 1/4	1.05
92	10	600	1 1/16 x 2 15/16	1.77
50025	250	50	1 1/16 x 2 7/8	1.05
308	.5z @ 15750c	3 V NP	1 1/16 x 2	1.32
420	1.5z @ 60 cy.	4 V DC	1 1/16 x 2 7/8	2.10
421	1.52 @ 120 cy.	6 V DC	1 1/16 x 2	1.80

TCD DUAL COMMON NEGATIVE

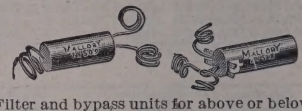
Mall. No.	Cap. Mfd.	D.C. W.V.	Size, In. Dia. x Lg.	Net Each
26	25-25	25	13/16 x 1 1/4	$0.84
45	20-20	150	13/16 x 2	.99
47	30-30	150	15/16 x 2	1.08
48	40-40	150	1 7/16 x 2	1.11
485	40-20	150	1 1/16 x 2	1.05
49	50-50	150	1 1/16 x 3 1/16	1.26
497	50-30	150	1 1/16 x 2 1/4	1.17
498	80-50	150	1 1/16 x 2 1/4	1.41
52	10-10	250	13/16 x 2	.99
55	20-20	250	1 1/16 x 2	1.11
62	10-10	350	15/16 x 2	1.02
65	20-20	350	1 7/16 x 3 1/16	1.35
71	8-8	450	15/16 x 2	1.02
72	10-10	450	1 7/16 x 2	1.11
74	15-15	450	1 7/16 x 3 1/16	1.32
75	20-20	450	1 7/16 x 3 1/16	1.50
78	40-40	450	1 7/16 x 4	2.04

TCS DUAL SEPARATE SECTION

Mall. No.	Cap. Mfd.	D.C. W.V.	Size, In. Dia. x Lg.	Net Each
44	15-15	150	15/16 x 2 3/8	1.20
45	20-20	150	15/16 x 2 3/8	1.26
47	30-30	150	1 1/16 x 2 3/8	1.35
48	40-40	150	1 1/16 x 2 7/8	1.41
505	70-70	175	1 1/16 x 3 7/8	2.16
52	10-10	250	15/16 x 2 3/8	1.26
55	20-20	250	1 1/16 x 2 7/8	1.41
61	8-8	350	15/16 x 2 3/8	1.26
64	15-15	350	1 1/16 x 2 7/8	1.65
71	8-8	450	1 1/16 x 2 3/8	1.29
74	15-15	450	1 1/16 x 2 7/8	1.65
75	20-20	450	1 1/16 x 3 1/2	1.89

63-55A

TYPES 2N-2S-3N-3S-4N-4S-ST-TN DRY ELECTROLYTIC CARDBOARD TUBULAR CAPACITORS



Filter and bypass units for above or below-chassis mounting where humidity conditions are not extreme. Cardboard tubes with extra inner seal and ample wax seal at ends. All types are supplied with 8" flexible covered leads out one end except those marked (*), which have negative lead out opposite end. All except TN111 are supplied with adjustable horizontal mounting strap. All units marked (†) have special feet for vertical mounting. (#) Bared tinned leads out of both ends. Average shipping weight 4 oz.

SINGLE SECTION

Mallory No.	Cap. Mfd.	D.C. W.V.	Size Di. x Lg.	Net Each
ST595†	8	450	13/16x2 1/8	$0.75
ST597†	16	450	7/8x2 3/4	.84
ST598†	30	450	1x2 3/4	.93
ST599†	30	450	1x3 1/4	1.02
ST645	60	450	1 3/16x3 5/8	1.41
ST845	80	450	1 3/16x4 3/8	1.68

DUAL COMMON NEGATIVE

Mallory No.	Cap. Mfd.	D.C. W.V.	Size Di. x Lg.	Net Each
TN111#	10-10	25	5/8x1 3/4	.84
2N501	250-1000	10-6	1 1/16x2 5/8	1.68
2N509*	20-20	150	7/8x2 1/8	.99
2N513*	30-30	150	7/8x2 5/8	1.08
2N514*	40-20	150	7/8x2 1/2	1.05
2N511*	40-40	150	15/16x2 1/2	1.11
2N521†	50-50	150	1x2 7/8	1.26
2N516*	8-8	250	7/8x2 1/8	.96
2N518†	8-8	450	15/16x2 3/4	1.02
2N523	100-100	150-150	1 1/8x3 3/8	1.92
2N525	30-30	200-200	1x2 5/8	1.32
2N527	50-75	250-50	1 1/4x2 5/8	1.44
2N529	100-150	250-50	1 3/8x3 3/8	2.16
2N531	40-40	300-300	1 1/8x3 3/8	1.77
2N533	40-50	450-50	1 1/8x3 3/8	1.50
2N535	30-60	450-300	1 1/4x3 3/8	1.92

DUAL SEPARATE SECTIONS

Mallory No.	Cap. Mfd.	D.C. W.V.	Size Di. x Lg.	Net Each
2S556†	30-30	150	1x2 3/4	1.35
2S567†	8-8	450	1 1/8x2 3/4	1.29
2S569†	16-16	450	1 1/4x3 7/8	1.68

TRIPLE COMMON NEGATIVE

Mallory No.	Cap. Mfd.	D.C. W.V.	Size Di. x Lg.	Net Each
3N527*	20-20-20	150-150-25	15/16x2 1/4	1.23
3N533*	30-30-20	150-150-25	1x2 3/8	1.32
3N535	40-30-40	350-250-150	1 3/16x3 3/8	1.98
3N537	30-50-100	450-150-25	1 1/4x3 1/8	1.92
3N538	80-40-20	150	1x3 1/4	1.65
3N540	80-50-50	150	1 1/16x3 1/2	1.86
3N539	30-30-30	450-350-250	1 5/16x3 3/8	2.25
3N541	40-20-10	450	1 5/16x3 3/8	2.13
TN125*	20-10-10	150	7/8x2 3/8	1.20
TN129†	40-20-20	150	15/16x2 7/8	1.35

TRIPLE SEPARATE SECTION (1st sec. sep.)

Mallory No.	Cap. Mfd.	D.C. W.V.	Size Di. x Lg.	Net Each
3S579†	8-8-20	450-25	1 3/16x2 7/8	1.59
3S584†	8-8-8	450	1 3/16x2 7/8	1.71

QUAD COMMON NEGATIVE

Mallory No.	Cap. Mfd.	D.C. W.V.	Size Di. x Lg.	Net Each
4N723	10-10-10-150	450-450-450-50	1 3/16x3 3/8	2.16
4N727	10-10-10-10	450	1 1/8x3 3/8	1.95

QUAD SEPARATE SECTIONS (1st sec. sep.)

Mallory No.	Cap. Mfd.	D.C. W.V.	Size Di. x Lg.	Net Each
4S715†	16-16-10-10	150-25	1 1/8x2 5/8	1.95

TCT TRIPLE COMMON NEGATIVE

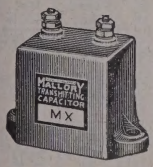
Mallory No.	Cap. Mfd.	D.C. W.V.	Size Di. x Lg.	Net Each
3107	50-30-20	150-150-25	1 1/16x2 1/4	1.41
3112	20-20-20	150	1 1/16x1 3/4	1.29
3113	30-30-30	150	1 1/16x2 1/4	1.41
3114	40-20-20	150	1 1/16x2 1/4	1.35
3115	40-40-40	150	1 1/16x2 7/8	1.47
3116	40-40-20	150	1 1/16x2 1/4	1.41

Mallory High Voltage Capacitors

TYPE TX OIL FILLED RECTANGULAR CAPACITORS

Compact rectangular oil filled capacitors of sturdy construction for all radio, television and transmitting circuits requiring high voltage capacitors. Suitable standoff insulated terminals are provided at one end to safely cover maximum voltage rating of each unit. Units with base dimensions less than 3½" x 5⅛" are mounted by a rectangular clamp providing either upright or inverted position. Larger sizes are mounted by permanent flanges at the unit base. Shipping weight 5 lbs.

Mallory No.	Cap. Mfd.	Working Volts DC	*Size, In. W. x L. x H.	Net Each
TX801	1	600	1x1¾x2⅛	$3.12
TX802	2	600	1x1¾x2⅝	3.90
TX803	4	600	1x1¾x4¼	5.10
TX816	6	600	1 5/16x2½x4⅝	6.30
TX817	10	600	1¼x3¾x4⅝	8.40
TX822	.5	1000	1x1¾x2⅛	2.73
TX804	1	1000	1x1¾x2⅝	3.42
TX805	2	1000	1x1¾x3⅞	4.56
TX806	4	1000	1 5/16x2½x4⅝	5.76
TX824	6	1000	1¼x3¾x4⅝	7.65
TX825	10	1000	1¾x3¾x4⅝	9.30
TX807	1	1500	1x1¾x4¼	4.11
TX808	2	1500	1 5/16x2½x4⅝	5.70
TX809	4	1500	1½x3¾x4⅝	7.65
TX829	6	1500	1¾x3¾x4⅝	9.45
TX830	10	1500	3 5/16x3¾x4⅝	13.80
TX831	.25	2000	1x1¾x2⅛	3.90
TX832	.5	2000	1x1¾x2⅞	4.14
TX810	1	2000	1 5/16x2½x3⅝	5.04
TX811	2	2000	1¼x3¾x4¼	5.97
TX823	4	2000	2¼x3¾x4¾	8.25
TX833	6	2000	3 5/16x3¾x4⅝	10.80
TX834	10	2000	4 5/16x3¾x4⅝	17.10
TX812	1	2500	1 5/16x2½x4¼	7.35
TX813	2	2500	1¼x3 29/32x4 1/32	12.00
TX835	.1	3000	1 5/16x2½x2⅜	7.65
TX836	.25	3000	1 5/16x2½x3⅝	8.40
TX837	.5	3000	1 5/16x2½x4⅝	9.30
TX814	1	3000	1¾x3¾x4⅝	11.25
TX815	2	3000	3 5/16x3¾x4⅝	13.95
TX838	4	3000	4 5/16x3¾x5½	20.40
TX839	1	4000	2¼x3¾x4¾	20.40
TX827	2	4000	4 5/16x3¾x4¾	25.80
TX818	1	5000	5⅛x3½x5⅝	23.40
TX819	2	5000	5⅜x3½x9	30.00
TX820	.5	6000	4⅜x5⅛x3½	37.20
TX821	1	6000	3 15/16x4 13/16x6 13/16	46.20



TYPE MX MICA TRANSMITTING CAPACITORS

For amateur transmitting equipment, coupling, tank and bypass circuits at radio frequencies within their rating. Heavy-duty mica construction, supplied in rectangular porcelain cases. Two screw type terminals with complete washer and nut assembly. Cases have two flanges with ample holes for machine screw mounting.

Mallory No.	Cap. Mfd.	Test VoltsDC	Max. Amps.	Freq. KC.	Net Each
MX855	.001	12,500	9.0 10.0 11.0 12.0	15000 7500 3750 1875	$4.80
MX857	.002	12,500	9.0 12.0 13.0 15.0	15000 7500 3750 1875	$6.60
MX865	.005	10,000	10.0 13.0 14.0 15.0	15000 7500 3750 1875	$8.70
MX875	.01	7,000	10.0 13.0 15.0 15.0	15000 7500 3750 1875	$9.15
MX877	.02	3,500	10.0 13.0 17.0 17.0	15000 7500 3750 1875	$9.60
MX885	.05	3,500	11.0 14.0 16.0 18.0	15000 7500 3750 1875	$11.10
MX895	.1	2,000	11.0 14.0 16.0 18.0	15000 7500 3750 1875	$11.10

TYPES PS-MSG MOTOR STARTING CAPACITORS

PS and **MSG** types are applicable for intermittent duty in starting AC motors where round cases are required.

PS types are dry electrolytic non-polarized capacitors in round cases. Furnished in moisture-proof molded plastic containers.

MSG types in rectangular cases with terminal arrangements similar to the original capacitors they replace. Equipped with two capacitor and two dummy terminals. Two solder lugs at one end of the **PS** types. Type **PS**, except as noted below, may also be mounted by means of a plastic end cap (type PL) and sturdy metal snap-in type bracket (type HB), furn. separately when desired.

Mallory No.	Mfd. New	Rating Old	Volts AC	Size D. x L.	Net Each
PS2010*	20	20–24	110	1 7/16x2¾	$1.23
PS2610*	26	26–30	110	1 7/16x2¾	1.26
PS3210*	32	32–36	110	1 7/16x2¾	1.26
PS3810*	38	38–42	110	1 7/16x2¾	1.26
PS4310*	43	43–48	110	1 7/16x2¾	1.26
PS5310	53	53–60	110	1 7/16x3⅜	1.29
PS6410	64	64–72	110	1 7/16x3⅜	1.35
PS7010	70	70–78	110	1 7/16x3⅜	1.44
PS7510	75	75–84	110	1 7/16x3⅜	1.53
PS8610	86	86–96	110	1 7/16x3⅜	1.59
PS9710	97	97–107	110	1 7/16x3⅜	1.68
PS10810	108	108–120	110	1 7/16x3⅜	1.71
PS12410	124	124–138	110	1 7/16x3⅜	1.77
PS13010	130	130–157	110	1 7/16x3⅜	1.77
PS14510	145	145–162	110	1 7/16x3⅜	1.92
PS16110	161	161–180	110	1 7/16x3⅜	1.95
PS19410	194	194–216	110	1 7/16x3⅜	2.34
PS20010	200	200–220	110	1 7/16x4⅜	2.34
PS21610	216	216–240	110	1 13/16x3⅜	2.43
PS24310	243	243–270	110	1 13/16x3⅜	2.82
PS27010	270	270–300	110	1 13/16x4⅜	2.85
PS32410	324	324–360	110	1 13/16x4⅜	3.24
PS34010	340	340–412	110	1 13/16x4⅜	3.33
PS37810	378	378–420	110	2 1/16x4⅜	3.60
PS40010	400	400–450	110	2 1/16x4⅜	3.63
PS43010	430	430–485	110	2 1/16x4⅜	4.17
PS48510	485	485–540	110	2 1/16x4⅜	4.56
PS2520	25	25–30	220	1 7/16x3⅜	2.76
PS3220	32	32–36	220	1 13/16x3⅜	2.94
PS3820	38	38–42	220	1 13/16x3⅜	3.18
PS4320	43	43–48	220	1 13/16x3⅜	3.33
PS5320	53	53–60	220	1 13/16x3⅜	3.45
PS6420	64	64–72	220	1 13/16x4⅜	4.05
PS7020	70	70–78	220	2 1/16x4⅜	4.20
PS7520	75	75–84	220	2 1/16x4⅜	4.41
PS8620	86	86–96	220	2 1/16x4⅜	4.59

*Cases will not accommodate PL caps and HB brackets.

TYPE TZ OIL IMPREGNATED ROUND CAPACITORS

Oil impregnated type capacitors furnished in round containers for upright or inverted mounting. All units internally insulated from case. For filter and bypass circuits in power amplifiers, television and transmitting equipment where compact round can units are desired. The 1⅜" diameter units have two solder lug terminals with ample insulation for the rated voltages. The 2" units have special standoff insulated terminals. Supplied with bracket for inverted or upright mounting. Ave. ship. wt. 3 lbs.

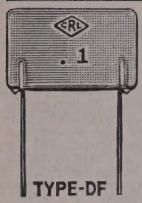
Mallory No.	Cap. Mfd.	Working Volts DC	Size, In. Dia. x Height	Net Each
TZ382	2.0	600	1x2⅝	$2.79
TZ383	4.0	600	1⅜x4⅛	3.72
TZ384	1.0	1000	1⅜x2⅝	2.58
TZ385	2.0	1000	1⅜x4⅛	3.27
TZ389	4.0	1000	2x4	4.35
TZ386	.5	1500	1⅜x3⅛	3.03
TZ387	1.0	1500	1⅜x4 11/16	3.27
TZ388	2.0	1500	2x4	4.35
TZ390	1.0	2000	2x3¼	4.11
TZ391	2.0	2000	2x4½	4.56

TYPE RP CONTINUOUS DUTY OIL IMPREGNATED CAPACITORS

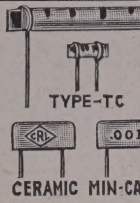
Designed primarily for heavy duty AC applications. May be used as motor running capacitors, fluorescent light ballast, etc., where continuous duty is required. Supplied in metal cases, these units may be safely operated at voltages up to 10% above rated values and at temperatures as high as 75° C. Impregnating oil is non-inflammable and non-oxidizing.

Mallory No.	Cap. Mfd.	Volts AC	Size Dia. x Lgth.	Net Each
RP-3301	1	330	1⅜x1 15/16	$2.52
RP-3302	2	330	1⅜x3 9/16	3.12
RP-3303	3	330	2x2⅝	3.33
RP-3304	4	330	2x2¾	3.72
RP-3305	5	330	2x3¼	4.08
RP-3306	6	330	2x3⅞	4.50
RP-3307	7	330	2x4¼	4.74
RP-3308	8	330	2x5⅛	5.01
RP-3310	10	330	2½x4 5/16	5.73
RP-3312	12	330	2½x5 5/16	6.54
RP-3315	15	330	2½x6 1/16	8.28

Centralab *Ceramic Capacitors*

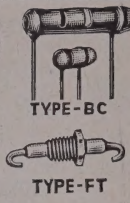


TYPE-DF

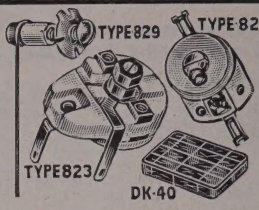


CERAMIC MIN-CAPS

DISC HI-CAPS



TYPE-FT



DK-40

MD

TYPE DF FLAT-PLATE HI-KAPS

A dependable 600 volt ceramic capacitor recommended for general replacement applications where their unusual thinness makes them useful. The 3 types listed below are 1⅝" long x 11/16" high.

CRL No.	Cap. Mfd.	Thickness	Net Each
DF-503	.05	1/8"	42c
DF-104	.1	1/4"	48c

TRIMMER CAPACITORS

Type 827—17/32" x ¾". Net Each....**60c**
Type 822—27/32" x 21/32". Net Each....**90c**
Type 823—1¼" x 1 15/16". Net Each.**$1.50**
Type 829—Body .215" dia. Types 829-7 and 829-10. Net Each.....**36c**
All other 829 series Net Each.....**30c**
All numbers listed below ending in Z, zero temperature coefficient. Numbers ending in N are negative, temperature coefficient.

CRL No.	Range μμf	CRL No.	Range μμf
827A	2.5-7	823-EZ	5.-12
827B	3.0-12	823-DZ	6.-25
827C	5.0-30	823-BZ	10.-50
827D	8.0-50	823-AZ	12.-60
822-DZ	1.5-3	823-EN	8.-25
822-EZ	1.5-7	823-DN	8.-50
822-CZ	2.0-7.5	823-BN	10.-100
822-BZ	2.5-13.0	823-AN	20.-125
822-AZ	4.5-25	829-3	.5-3
822-DN	2.0-6.0	829-4	1.-4
822-CN	4.5-25	829-6	1.-6
822-BN	7.0-45	829-7	1.-7.5
822-AN	8.0-50	829-10	1.5-10

FLAT-PLATE MIN-KAPS

150 V. D. C. W., 300 V. D. C. test. Size: 17/32" x 1/16" x 1/4".

CRL No.	Cap. Mfd.	Tolerance	Net Each
DM-101	.0001	−20%+50%	21c
DM-201	.0002	−20%+50%	
DM-301	.0003	−20%+50%	
DM-501	.0005	−20%+50%	
DM-102	.001	−20%+50%	
DM-202	.002	−20%+50%	27c
DM-2024	.002	GMV	39c
DM-302	.003	−20%+80%	27c
DM-502	.005	−20%+50%	27c
DM-103	.01	−20%+50%	39c
DM2-502	2x.005	−20%+50%	39c

TYPE MD MOLDED DISC CERAMIC HI-KAPS

Molded disc ceramics feature highest breakdown to ground, high lead strength, high resistance to mechanical damage. 1,000 VDCW to 4,000 mmf., over 4,000 mmf. 600 VDCW. Tolerance ±10% 5 mmf to 680 mmf., ±20% 750 mmf to 3,300 mmf. 85° C. operating temperature. Ratings marked on units. Size 11/16" dia., 3/16" thick.
Net Each.....**18c**

CRL No.	Cap. mmf.	CRL No.	Cap. mmf.
MD-050	5	MD-251	250
MD-100	10	MD-271	270
MD-120	12	MD-301	300
MD-150	15	MD-331	330
MD-180	18	MD-391	390
MD-200	20	MD-401	400
MD-220	22	MD-471	470
MD-250	25	MD-501	500
MD-270	27	MD-561	560
MD-330	33	MD-601	600
MD-390	39	MD-681	680
MD-470	47	MD-751	750
MD-500	50	MD-821	820
MD-560	56	MD-102	1000
MD-680	68	MD-122	1200
MD-750	75	MD-152	1500
MD-820	82	MD-182	1800
MD-101	100	MD-202	2000
MD-121	120	MD-222	2200
MD-151	150	MD-252	2500
MD-181	180	MD-272	2700
MD-201	200	MD-302	3000
MD-221	220	MD-332	3300

TC TEMPERATURE COMPENSATING TUBULARS

TCZ units are negative-positive-zero (NPO) type. TCN units are temperature compensating, N750 type, giving a negative change of 750 parts per million per degree C. 1,200v. DC test; 600v. DC.

TYPE TCZ HI-KAP TUBULARS

These units are available in **Type TCZ** only.

CRL	μμf	Toler.	Net
TCZ-.5	.5	±.25 μμf	30c
TCZ-.68	.68	±.25 μμf	
TCZ-1	1.	±.25 μμf	
TCZ-1.5	1.5	±.25 μμf	
TCZ-2.2	2.2	±.25 μμf	
TCZ-3.3	3.3	±.25 μμf	
TCZ-4.7	4.7	±.5 μμf	30c
TCZ-6.8	6.8	±.5 μμf	

TYPES TCZ-TCN HI-KAP TUBULARS

These units available both in Type TCZ and TCN. Specify type when ordering.

TCZ-N-10	10.	±.5μμf	30c
TCZ-N-12	12.		
TCZ-N-15	15.		
TCZ-N-18	18.		
TCZ-N-20	20.		
TCZ-N-22	22.	±2½%	30c
TCZ-N-24	24.		
TCZ-N-25	50.		
TCZ-N-27	27.		
TCZ-N-30	30.		
TCZ-N-33	33.		
TCZ-N-36	36.		
TCZ-N-39	39.		
TCZ-N-43	43.		
TCZ-N-47	47.		
TCZ-N-50	25.		
TCZ-N-51	51.		
TCZ-N-56	56.		
TCZ-N-62	62.		
TCZ-N-68	68.		
TCZ-N-75	75.		
TCZ-N-82	82.		
TCZ-N-91	91.		
TCZ-N-100	100.		
TCZ-N-110	110.	±5%	30c
TCZ-N-120	120.		
TCZ-N-130	130.		
TCZ-N-150	150.		
TCZ-N-160	160.		
TCZ-N-180	180.		
TCZ-N-200	200.		
TCZ-N-220	220.		
TCZ-N-240	240.		
TCZ-N-270	270.		
TCZ-N-300	300.		

TYPE TCN HI-KAP TUBULARS

These units are available in **Type TCN** only.

CRL	μμf	Toler.	Net
TCN-5	5.	±5%	30c
TCN-330	330.		
TCN-360	360.		
TCN-390	390.		
TCN-430	430.		
TCN-470	470.		
TCN-510	510.		
TCN-560	560.		
TCN-620	620.		
TCN-680	680.		
TCN-750	750.		

FT FEED-THROUGH HI-KAPS

Voltage Rating—600 V. D. C. W., 1000 V. D. C. Flash. **Terminals**—Both ends hooked. **Mounting**—Nut furnished.

CRL	μμf	Tolerance	Net
FT-500	500	±20%	60c
FT-1000	1000	±20%	
FT-1500	1500	−20% +50%	
FT-1800	1800	−20% +50%	
FT-2300	2300	−20% +50%	

Type MFT—¼" max. flange diam. eyelet is inserted in .160" diam. hole and soldered directly to chassis.

MFT-50	50	±10%	30c
MFT-100	100	±10%	
MFT-500	500	±20%	
MFT-1000	1000	G.M.V.	

BC HI-KAP TUBULARS

600 VDCW, 1000 V. peak, ±20%, through .0022 mfd. GMV from .0025 to .01 mfd. Operating temperature 85° C. Tropicalized. Minimum order quantity 5.
Size A—Dia. .230" x .475" long. Net..**12c**

CRL D6-	Cap. μμfd.	CRL D6-	Cap. μμfd.	CRL D6-	Cap. μμfd.
030	3	500	50	301	300
050	5	560	56	331	330
100	10	680	68	391	390
120	12	750	75	401	400
150	15	820	82	471	470
180	18	910	91	501	500
200	20	101	100	561	560
220	22	121	120	601	600
250	25	151	150	681	680
270	27	181	180	751	750
330	33	201	200	821	820
390	39	221	220	102	1000
400	40	251	250	.....	.....
470	47	271	270	.....	.....

Size B—Dia. .230" x .750". Net Each. **12c**

122	1200	202	2000	272	2700
152	1500	222	2200	302	3000
182	1800	252	2500	.....	.....

Size C—Dia. .255" x .885". Net Each. **12c**

332	3300	472	4700	.....	.....
402	4000	502	5000	.....	.....

Size D—Dia. .310" x 1.180". Net Ea.. **12c**

562	5600	752	7500	.....	.....
682	6800	103	10000	.....	.....

TV HI-VO KAPS

Exact body sizes 501, 1" dia. x .510". 502, 1" dia. x 1.050", 503, 1.4" dia. x 1.250". Terminals—A: plain studs. B: One slotted 1/16" wide x 1/16" deep, other tapped 6-32, ¼" deep. C: Screw terminals male 6-32 x ¼"; female 6-32 x ¼"; D; Two-male threaded term. E: Two female threaded term. Capacity tolerance −20% +50%. F: 1 8-32 thread, 16-32 thread. G: 2 8-32 thread.

CRL No.	Cap. μμf	V. D. C. W.	Terminal	Net Each
TV1-501	500	10,000	A	60c
TV2-501	500	10,000	B	
TV3-501	500	10,000	C	
TV1-502	500	20,000	A	90c
TV2-502	500	20,000	B	
TV3-502	500	20,000	C	
TV1-503	500	30,000	A	$1.80
TV4-502	500	20,000	D	90c
TV5-502	500	20,000	E	
TV7-502	500	48,000	F	
TV8-503	500	30,000	G	$1.80

PRECISION ATTACHABLE TERMINAL HI-VO KAPS

TYPE TV-20 20,000 VDCW High Voltage Ceramic Capacitors. 40,000 VDCT. Capacity 500 mmf. Terminals will not pull out or break off. Five different type terminals available as listed below.
Type TV-20 Capacitor—Net Each..**90c**

ATTACHABLE TERMINALS

Term. No.	Type	Thread	Net Each
TX-1	Slotted Rod	.....	6c
TX-2	Female Tap	6-32	
TX-3	Male Thread	6-32	
TX-4	Short Male	8-32	
TX-5	Long Male	8-32	

Centralab *Printed Electronic Circuits*

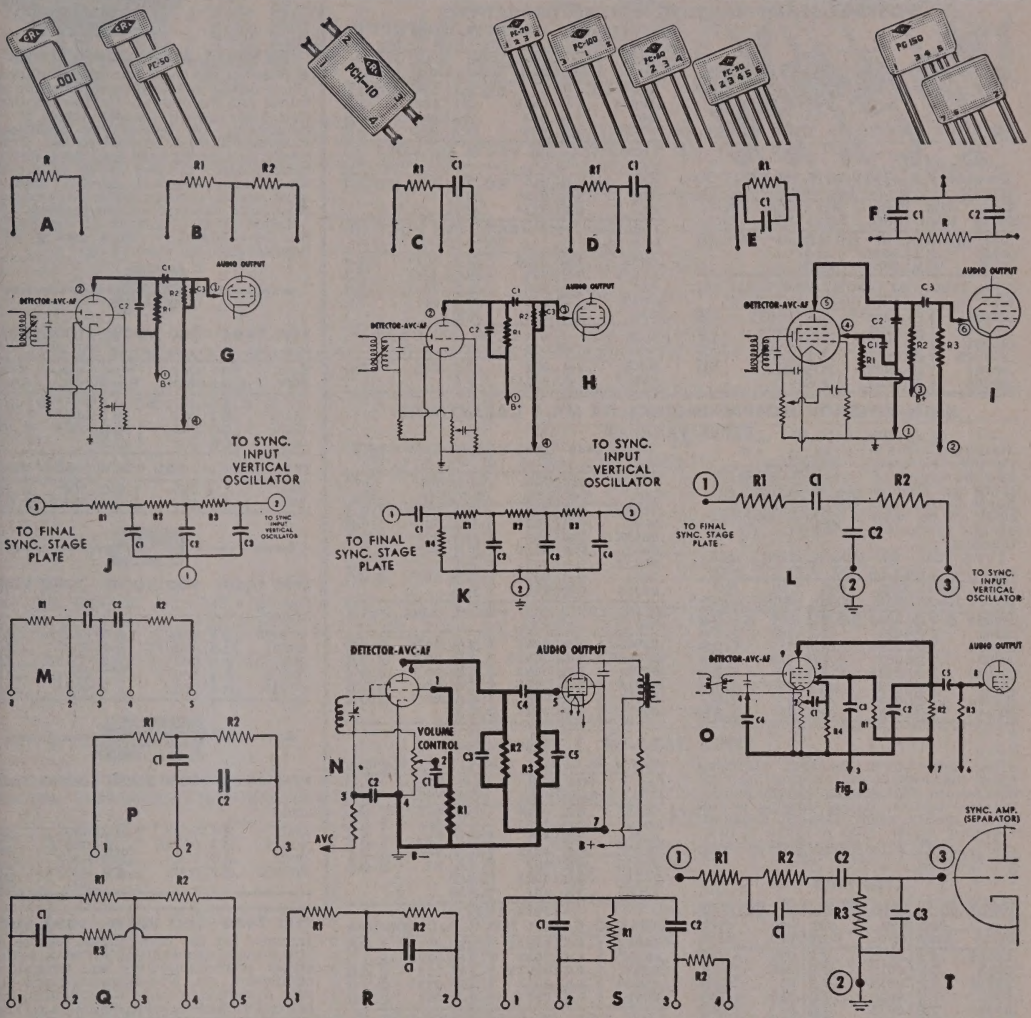


Fig. D

CRL No.	Fig.	Description	R1	R2	R3	R4	C1	C2	C2+C3	C3	C3+C5	C4	C5	Net
PC-2	A	Single Resistor	2 meg											$0.21
PC-21	B	Dual Resistor	500K	110K										.30
PC-30	C	Resistor-Capacitor	240K				1000 μμf							.30
PC-33	D	Resistor-Capacitor	1 meg				1000 μμf							.30
PC-36	E	Resistor-Capacitor	100K				100 μμf							.30
PC-50	F	Filpec‡	47K				100 μμf	100 μμf						.36
PC-51	F	Filpec‡	47K				150 μμf	150 μμf						.36
PC-52	F	Filpec‡	47K				50 μμf	50 μμf						.36
PC-70	G	Midget Couplate	500K	500K			5000 μμf		250 μμf					.42
PC-71	G	Midget Couplate	250K	500K			5000 μμf		250 μμf					.42
PC-80	H	Standard Couplate	500K	500K			.01 μf		250 μμf					.45
PC-81	H	Standard Couplate	250K	500K			.01 μf		250 μμf					.45
PC-84	H	Standard Couplate‡	500K	500K			.01 μf		500 μμf					.45
PC-90	I	Pentode	4.7 meg	1 meg	2.2 meg		5000 μμf	50 μμf		2000 μμf				.54
PC-91	I	Pentode	4.7 meg	1 meg	2.2 meg		5000 μμf	100 μμf		5000 μμf				.54
PC-92	I	Pentode	4.7 meg	1 meg	2.2 meg		5000 μμf	100 μμf		2000 μμf				.60
PC-100	J	Vertical Integrator	22K	8.2K	8.2K		2000 μμf	5000 μμf		5000 μμf				.66
PC-101	K	Vertical Integrator	22K	8.2K	8.2K	22K	.01 μf	2000 μμf		5000 μμf		5000 μμf		.75
PC-106	L	Vertical Integrator	22K	10K			4700 μμf	4700 μμf						.60
PC-110	M	Filplate‡*	1000	820			.005 μf	.005 μf						.45
PC-111	M	Filplate‡*	220	1000			.005 μf	.005 μf						.45
PC-150	N	Audet‡ Output Stage	6.8 meg	470K	470K		2000 μμf	220 μμf			250 μμf	5000 μμf		.60
PC-151	N	Audet‡ Output Stage	6.8 meg	470K	470K		5000 μμf	220 μμf			250 μμf	5000 μμf		.69
PC-160	O	Pendet‡†	4.7 meg	1.0 meg	3.3 meg	10 meg	.002 μf	150 μμf		.01 μf		150 μμf	.005 μf	.75
PC-165	O	Pendet‡†	4.7 meg	1.0 meg	3.3 meg	10 meg	.002 μf	150 μμf		.01 μf		150 μμf	.005 μf	.81
PC-176	P	Special	82K	39K			.001 μf	.002 μf						.45
PC-177	Q	Special	150K	47K	1 meg		.01 μf							.60
PC-178	R	Special	15K	270K			150 μf							.45
PC-179	S	Special	150	220			.005 μf	.005 μf						.54
PC-260	T	Couplate‡**	10K	330K	2.2 meg		270 μμf	.01 μf		27 μμf				.75

*Filter Plate. †Pentode Detector Couplate‡. **Sync. Take-off. ‡Registered.

184X-55A

Mica Capacitors by AEROVOX corporation

POSTAGE-STAMP-BAKELITE MOLDED CAPACITORS

Type 1441W—500 VDCW, 1000 VDCT (B)
Size: 1 x ⅝ x 3/16. Tol. ±20%. *5/16 Th.

Cap. Mfd.	Net Each	Cap. Mfd.	Net Each	Cap. Mfd.	Net Each
.0005	$0.15	.002	$0.24	.005*	$0.36
.00075	.15	.0025	.27	.006*	.45
.001	.18	.003	.30	.007*	.54
.0015	.18	.004*	.33	.008*	.60

Type 1467X—300 VDCW, 600 VDCT (C)
Size: 53/64 x 53/64 x 9/32. Tol. ±20%. *21/64 Th.

.007	$0.48	.012*	$0.75	.015*	$0.94
.008	.54	.013*	.81	.....	.....
.01	.66	.014*	.87	.....	.....

Type 1467—500 VDCW, 1000 VDCT (D)
Size: 53/64 x 53/64 x 9/32. Tol. ±20%. *21/64 Th.

.0005	.15	.0025	.27	.007*	.54
.0007	.15	.003	.30	.008*	.60
.001	.18	.004	.33	.009*	.66
.0015	.18	.005	.36	.01*	.72
.002	.24	.006	.45	.....	.....

Type 1478—500 VDCW, 1000 VDCT (F)
Size: 1/16 x 7/16 x 3/16. Std. Tol., ±20%.

.0005	.18	.001	.24	.002	.30
.00075	.18	.0015	.27	.....	.....

Type 1441W X—300 VDCW, 600 VDCT (A)
Size: 1 x 5/8 x 3/16. Tol. ±20%. *5/16 Th.

Cap. Mfd.	Net Each	Cap. Mfd.	Net Each	Cap. Mfd.	Net Each
.004	$0.30	.007*	$0.48	.01*	$0.66
.005	.33	.008*	.54	.....	.....
.006	.42	.009*	.60	.....	.....

Type 1468—500 VDCW, 1000 VDCT (E)
Size: 45/64 x 29/64 x 3/16. Std. Tol., ±20%.

.000001	.15	.000075	.12	.00035	.15
.000005	.15	.0001	.12	.0004	.15
.00001	.15	.00015	.12	.0005	.15
.000025	.15	.0002	.12	.00075	.15
.00004	.12	.00025	.15	.001	.18
.00005	.12	.0003	.15	.....	.....

HIGH-VOLTAGE MOLDED-IN-BAKELITE MICA CAPACITORS

TYPES 1445-47

Insulated mounting holes 1 5/16" apart independent of solder lugs. Used as meter shunts. Add suffix (A) for large or (E) for small brackets.

TYPE 1445—600 VDCW, 1000 VDCT
Size: 1 1/8 x 1 5/8 x 11/32. Tol. ±10%. *1/16 Th.

Cap. Mfd.	Net Each	Cap. Mfd.	Net Each	Cap. Mfd.	Net Each
.00005	$.72	.0005	$0.72	.006	$1.08
.0001	.72	.001	.72	.008	1.14
.00015	.72	.0015	.72	.01	1.29
.0002	.72	.002	.78	.015*	1.59
.00025	.72	.0025	.78	.02*	1.83
.0003	.72	.003	.87	.025*	2.16
.00035	.72	.004	.90	.03*	2.67
.0004	.72	.005	.93	.04*	3.39

TYPES 1445-47

TYPE 1446—1200 VDCW, 2500 VDCT
Size: 1 1/8 x 1 5/8 x 11/32. Tol. ±10%. 1/16 Th.

Mfd. Cap.	Each Net	Mfd. Cap.	Each Net	Mfd. Cap.	Each Net
.00005	.96	.0004	.96	.004*	1.83
.0001	.96	.0005	.96	.005*	1.98
.00015	.96	.001	1.08	.006*	1.98
.0002	.96	.0015	1.38	.008*	2.31
.00025	.96	.002	1.44	.01**	3.06
.0003	.96	.0025	1.68	.015*	3.60
.00035	.96	.003	1.83	.....	.....

TYPE 1447—2500 VDCW, 5000 VDCT
Size: 1 1/8 x 1 5/8 x 11/32. Tol. ±10%. *7/16 Th.

.00005	1.14	.0003	1.35	.002*	2.49
.000075	1.14	.00035	1.35	.0025*	2.76
.0001	1.14	.0004	1.38	.003*	2.94
.00015	1.14	.0005	1.44	.004*	3.39
.0002	1.14	.001	1.68	.005*	3.84
.00025	1.32	.0015	2.13	.....	.....

TYPES 1455-57

These types have insulated mounting holes, independent of soldering lugs, for connections. 1 1/2" spacing between mounting hole centers. If 1 5/16" spacing is preferred specify types 1445-47. Standard tolerance ±20%. Also available ±10%, ±5%, ±2%. Write for complete information. Size 1 1/4" x 1 25/32" x 11/32".

TYPE 1455
1000 V. D. C. Test, 600 V. D. C. Working

Cap. Mfd.	Net Each	Cap. Mfd.	Net Each	Cap. Mfd.	Net Each
.00005	.72	.0005	.72	.006	1.08
.0001	.72	.001	.72	.008	1.14
.00015	.72	.0015	.72	.01	1.29
.0002	.72	.002	.78	.015	1.59
.00025	.72	.0025	.78	.02	1.83
.0003	.72	.003	.87	.025	2.16
.00035	.72	.004	.90	.03	2.67
.0004	.72	.005	.93	.....	.....

TYPE 1456
2500 V. D. C. Test, 1200 V. D. C. Working

Cap. Mfd.	Net Each	Cap. Mfd.	Net Each	Cap. Mfd.	Net Each
.00005	.96	.0004	.96	.004	1.83
.0001	.96	.0005	.96	.005	1.98
.00015	.96	.001	1.08	.006	1.98
.0002	.96	.0015	1.38	.008	2.31
.00025	.96	.002	1.44	.01	3.06
.0003	.96	.0025	1.68	.....	.....
.00035	.96	.003	1.83	.....	.....

TYPE 1457
5000 V. D. C. Test, 2500 V. D. C. Working

.00005	1.14	.00025	1.32	.001	1.68
.000075	1.14	.0003	1.35	.0015	2.13
.0001	1.14	.00035	1.35	.002	2.49
.00015	1.14	.0004	1.38	.0025	2.76
.0002	1.14	.0005	1.44	.003	2.94

Large meter mounting brackets for the above types permitting use of these units for shunting meter windings are available for **21c** net. Small brackets **12c** net.

TYPES 1650-54

Heaviest-duty molded-in-bakelite mica capacitors. Provided with threaded holes taking the roundhead screw terminals. If wanted with plain holes through which screws or rods may be slipped, add suffix (A). Types 1650, 1651 and 1652 are supplied in brown bakelite. Types 1653L and 1654L are supplied only in low-loss XM (yellow) bakelite. Std. Tol. ±20%. Size: 1 3/4" x 1 5/16" x 7/16".

TYPE 1650
1000 V. D. C. Test, 600 V. D. C. Working
700 V. A. C. Test, 350 V. A. C. Working

Cap. Mfd.	Net Each	Cap. Mfd.	Net Each	Cap. Mfd.	Net Each
.00005	.87	.0015	.87	.01	1.68
.0001	.87	.002	.99	.015	1.83
.00025	.87	.0025	1.02	.02	2.13
.0003	.87	.003	1.11	.025	2.61
.00035	.87	.004	1.20	.03	2.73
.0004	.87	.005	1.26	.04*	3.51
.0005	.87	.006	1.32	.05*	4.26
.001	.87	.008	1.47	.06*	4.83

*3/4" thick. All others 7/16".

TYPE 1651
2500 V. D. C. Test, 1200 V. D. C. Working
1750 V. A. C. Test, 875 V. A. C. Working

Cap. Mfd.	Net Each	Cap. Mfd.	Net Each	Cap. Mfd.	Net Each
.00005	.96	.001	1.14	.006	2.07
.0001	.96	.0015	1.35	.008	2.46
.00025	.96	.002	1.50	.01	2.82
.0003	.96	.0025	1.68	.015	3.48
.00035	.96	.003	1.77	.02*	4.23
.0004	.96	.004	1.86	.025*	4.74
.0005	.96	.005	1.98	.03*	4.86

TYPE 1652
5000 V. D. C. Test, 2500 V. D. C. Working
3500 V. A. C. Test, 1750 V. A. C. Working

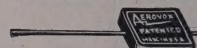
.00005	1.14	.00035	1.35	.003	3.06
.000075	1.14	.0004	1.50	.004	3.39
.0001	1.14	.0005	1.53	.005	3.72
.00015	1.20	.001	1.74	.006	3.81
.0002	1.26	.0015	2.34	.008*	4.11
.00025	1.29	.002	2.55	.01*	4.38
.0003	1.32	.0025	2.76	.....	.....

*3/4" thick. All others 7/16".

111-52B

SILVERED MICA CAPACITORS

For use in the most critical applications where precise capacity values must be attained and maintained. Unique construction. Only plus .0022 per degree F.—a remarkably low temperature coefficient. Excellent retrace characteristics. Practically no capacity drift with time. Exceptionally high "Q." For use in all circuits where inductance and capacity product must remain constant under all operating conditions. Encased in red molded XM bakelite. Wax impregnated externally. Standard tolerance values are ± 5%. Average shipping weight 2 oz.



TYPE 1464—500 VDCW—1000 VDCT
Size: 53/64 x 53/64 x 9/32, except (*), 21/64 Thick

Cap. Mfd.	Net Each	Cap. Mfd.	Net Each	Cap. Mfd.	Net Each
.00075	$.54	.0015	$0.81	.004*	$1.29
.0008	.57	.002	.81	.005*	1.35
.0009	.60	.0025	1.08	.006*	1.80
.001	.66	.003	1.23	.....	.....

TYPE 1464X—300 VDCW—600 VDCT

.004	1.29	.006	1.80	.008*	2.40
.005	1.35	.007*	2.04	.01*	2.88

TYPE 1469—500 VDCW—1000 VDCT
Size 45/64" x 29/64" x 3/16". Provided with wire leads.

.000005	.27	.00007	.24	.00025	.27
.00001	.24	.000075	.24	.0003	.33
.000025	.24	.0001	.24	.00035	.36
.00004	.24	.00015	.27	.0004	.39
.00005	.24	.0002	.27	.0005	.42

TYPE 1479—500 VDCW—1000 VDCT
Size 1 1/16" x 7/16" x 3/16". Provided with wire leads.

.0001	.24	.0003	.33	.0007	.51
.00015	.27	.00035	.36	.00075	.54
.0002	.27	.0004	.39	.0008	.57
.00025	.27	.0005	.42	.0009	.60
				.001	.66

TYPE 1450—600 VDCW—1000 VDCT
Intended for the more critical service of low-powered transmitting circuits, buffer stages, power amplifiers, and laboratory equipment, etc. Non-magnetic parts are used to reduce r-f losses to minimum, and heavy terminals provide minimum r-f and contact resistance. Size 1 1/4" x 1 1/4

Cap. Mfd.	Net Each	Cap. Mfd.	Net Each	Cap. Mfd.	Net Each
.00025	.27	.002	.33	.01	.60
.0003	.27	.0025	.36	.015*	.81
.00035	.27	.003	.42	.02*	.87
.0004	.27	.004	.42	.025*	1.05
.0005	.27	.005	.42	.03*†	1.23
.001	.30	.006	.48	.04*†	1.59
.0015	.33	.008	.54	.05*†	1.98

*600 V. D. C. Test—300 V. D. C. Working.
†3/4" thick, all others 5/16".

TYPE 1653L
7500 V. D. C. Test, 3750 V. D. C. Working
5250 V. A. C. Test, 2625 V. A. C. Working

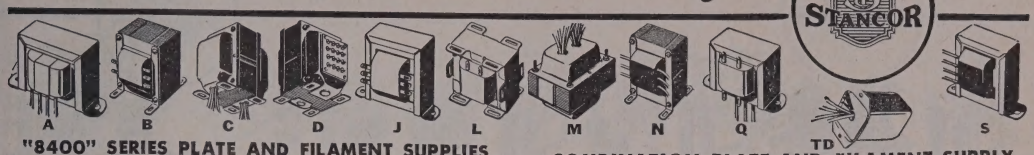
Cap. Mfd.	Net Each	Cap. Mfd.	Net Each	Cap. Mfd.	Net Each
.00005	1.98	.00025	2.85	.001	4.62
.000075	2.19	.0003	2.94	.0015	6.06
.0001	2.28	.00035	3.45	.002	6.90
.00015	2.49	.0004	3.54	.0025	7.74
.0002	2.58	.0005	3.90	.003*	8.55

TYPE 1654L
10,000 V. D. C. Test, 5000 V. D. C. Working
7000 V. A. C. Test, 3500 V. A. C. Working

.00005	2.25	.0002	3.75	.0004	4.62
.000075	2.49	.00025	4.08	.0005	5.94
.0001	2.79	.0003	4.29	.001*	7.50
.00015	3.03	.00035	4.50	.....	.....

*3/4" thick. All others 7/16".

TRANSFORMERS by STANCOR



"8400" SERIES PLATE AND FILAMENT SUPPLIES

TYPE PC, "C" Mtg.; PM "M" Mtg.; PS, "S" Mtg.; PA, "A" Mtg.
Provide approximately 260 v. d. c. to condenser input filter.

Stancor No.	Plate V	Plate DC ma	Rec. Fil. V	Rec. Fil. A	Amp. Fil. V	Amp. Fil. A	Mtg. Area Inches	Wt. Lbs.	Net Each
PC8401	470	40	5	2	6.3 CT	2.0	2⅝x2⅝	2.2	$4.05
PM8401	470	40	5	2	6.3 CT	2.0	2⅛x3	2.2	4.05
PC8402	480	55	5	2	6.3 CT	2.0	2⅜x2¾	2.4	4.50
PM8402	480	55	5	2	6.3 CT	2.0	2⅛x3	2.4	4.50
PC8403	500	70	5	2	6.3 CT	2.5	2⅜x3⅛	3.2	5.04
PM8403	500	70	5	2	6.3 CT	2.5	2⅛x3	3.2	5.04
PC8404	520	90	5	2	6.3 CT	3.0	3x3½	4.0	5.67
PM8404	520	90	5	2	6.3 CT	3.0	2⅞x3⅜	4.0	5.67
PC8405	540	120	5	3	6.3 CT	3.5	3¼x3½	4.9	6.27
PM8405	540	120	5	3	6.3 CT	3.5	3⅛x3¾	4.9	6.27
Use with choke input, VR supply, Spkr. field or Hi-V. C. input.									
PC8406	650	40	5	2	6.3 CT	2.0	2⅝x2¾	2.4	4.14
PM8406	650	40	5	2	6.3 CT	2.0	2⅛x3	2.4	4.14
PC8407	650	55	5	2	6.3 CT	2.0	2⅜x3⅛	3.2	4.56
PM8407	650	55	5	2	6.3 CT	2.0	2⅛x3	3.2	4.56
PC8422	700	150	5	3	6.3 CT	5.0	3¼x3⅞	5.8	8.07
PM8422	700	150	5	3	6.3 CT	5.0	3⅛x3¾	5.8	8.07
PC8408	680	70	5	2	6.3 CT	2.5	3x3⅜	3.8	5.16
PM8408	680	70	5	2	6.3 CT	2.5	2⅞x3⅜	3.8	5.16
PC8409	700	90	5	2	6.3 CT	3.0	3x3⅝	4.5	5.76
PM8409	700	90	5	2	6.3 CT	3.0	2¾x3¾	4.5	5.76
PC8410	720	120	5	3	6.3 CT	3.5	3¼x3¾	5.5	6.36
PM8410	720	120	5	3	6.3 CT	3.5	3⅛x3¾	5.5	6.36
PC8411	750	150	5	3	6.3 CT	4.5	3⅝x4	5.8	7.62
PM8411	750	150	5	3	6.3 CT	4.5	3½x4⅛	5.8	7.62
PC8412	800	200	5	3	6.3 CT	5.0	4x4	8.2	8.58
PM8412	800	200	5	3	6.3 CT	5.0	3¾x4½	8.2	8.58
PC8413	800	250	5	4	6.3 CT	5.0	4x4½	10.	10.77
PC8414	12K	200	5	3	6.3x2	3x2	4x4	8.3	10.83
For use with 6AX5, 6X4, 6X5, or selenium rectifiers.									
PS8415	125	15	½ wave		6.3	0.6	2⅜x1¾	0.7	1.89
PS8416	250	25	.....		6.3	1.0	2⅞x1¾	1.0	2.37
PC8417	440	50	6.3	.6	25.2	0.5	2⅝x2⅝	2.2	4.44
PC8418	460	50	.....		6.3	2.5	2⅝x2⅝	2.2	3.93
PM8418	460	50	.....		6.3	2.5	2⅛x3	2.2	3.93
PC8419	480	70	.....		6.3	3.0	2⅝x2⅞	2.6	4.50
PM8419	480	70	.....		6.3	3.0	2⅛x3	2.6	4.50
PC8420	520	90	.....		6.3	4.0	3x3½	3.5	5.01
PM8420	520	90	.....		6.3	4.0	2⅞x3⅜	3.5	5.01
PA8421	125	50	½ wave		6.3	2.0	3¾x2⅛	1.5	3.15

OUTPUT TRANSFORMERS Single Plate to Voice Coil

Stancor No.	Impedance in Ohms Pri.	Impedance in Ohms Sec.	Max. Watts	Mtg.	Net Each
A-3865	1,500	6, 4, 2	5	A	$1.98
A-3330*	2,000	3.5	5	A	1.38
A-3332	2,000	3.2	3	A	.96
A-3876	2,000	4	5	A	1.14
A-3328	4,000	3.5	3	A	1.23
A-3877	5,000	4	5	A	1.20
A-3310	5,000	500, 15, 8, 4	20	C	4.83
A-3878	7,000	4	5	A	1.17
A-2313	7,000	8	10	A	2.04
A-3329	8,000	3.5	3	A	1.14
A-3879	10,000	4	5	A	1.14
A-3881	15,000	4	5	A	1.29
A-3327	25,000	4	5	A	1.47
A-3336*	25,000	3.5	5	A	1.59
PUSH-PULL PLATES TO VOICE COIL*					
A-3802	3800/3300	500, 250, 8, 4	75	C	$8.55
A-3851•	4,400	500, 250, 15, 8, 4	30	C	6.48
A-3872	5,000	15, 8, 4	18	TD	4.20
A-3800	5,000	500, 250, 15, 8, 4	30	C	5.22
A-3801	6,600	500, 250, 15, 8, 4	35	C	6.27
A-3304	10,000/7,000	500, 15, 8, 4	25	C	5.79
A-3311	10,000	500, 15, 8, 4	25	C	5.45
A-3831	10,000	8, 4, 2	5	A	2.01
A-3303	14,000	500, 15, 8, 4	20	MM	5.88
A-3335	10,000	6-8/3.2-4	10	S	2.64
A-2312	14,000	4	10	A	2.10
A-3496	14,000	4	5	A	1.92
A-3857	25,000	4	5	A	1.53

*Hum Reducing. • Has tertiary winding to provide 10% inverse feedback.

70.7 VOLT LINE TO VOICE COIL—MTG. J

Stancor No.	Power Steps in Watts	Impedance, Ohms Primary x Secondary	Net Each
A-8102	8/4/2/1/0.5	625/1250/2.5M/5M/10M x 4/8/16*	$2.70
A-8103	16/8/4/2/1/0.5	312.5/625/1250/2.5M/5M/10M*	3.78

*Secondary Impedance, 4/8/16 ohms.

TUBE TO LINE

Stancor No.	Application	Impedance/Ohms	Mtg.	Net Each
A-3842	PP Pl to line	Pri-14M,12M,10M,8MCT Sec-500	J	$4.68
A-3250	Sgl Pl or PP Pl to line	Pri-20M,10M,5M,20MCT Sec-500, 333, 200, 125, 50	Q	2.97

COMBINATION PLATE AND FILAMENT SUPPLY

Stancor No.	Plate V	Plate DC ma	Rec. Fil. V	Rec. Fil. A	Amp. Fil. V	Amp. Fil. A	Mtg. Area Inches	Mtg	Net Each
P-6001	650	40	5.0CT	2.0	2.5CT	4.0	2½x3	M	$5.40
P-6003	700	70	5.0CT	2.0	2.5CT	9.0	2⅞x3⅜	M	7.68
P-6005	700	70	5.0CT	3.0	2.5CT	9.0	2⅞x3⅜	M	5.25
					2.5CT	3.5			
P-6004	700	90	5.0CT	3.0	2.5CT	12.5	3⅛x3¾	M	6.93
P-6007	800	110	5.0CT	3.0	2.5CT	15.0	3⅛x3¾	M	8.49
					2.5CT	3.5			
P-6006	700	120	5.0CT	3.0	2.5CT	12.5	3⅛x3⅝	M	8.97
					2.5CT	3.5			
P-3005	720	125	5.0CT	3.0	2.5CT	10.0	4x3⅞	C	12.18
	80v	Bias	5.0CT	2.0	6.3CT	4.0			
P-4004	800	175	5.0CT	3.0	2.5	1.75	4x3⅞	C	10.71
	80v	Bias			6.3CT	2.5			
					6.3CT	2.5			
P-6315	740	275	5.0CT	3.0	6.3CT	7.0	3¾x4½	M	11.70

VIBRATOR TRANSFORMERS

Stancor No.	Sec. AC Volts	Sec. DC Volts	Filter Ma	Dimensions HxWxD In.	Mtg.	Net Each
P-6301	420	150	40	2⅛x2⅞x1¾	S	$3.12
P-4060	480	225	40	3⅛x2½x2⅝	N	4.05
P-4061	580	250	50	3⅛x2½x2⅝	N	3.90
P-4062	600	260	65	3⅛x2½x2⅝	N	4.29
P-4063	640	285	75	3⅛x2½x2¾	N	5.46
P-6131	740	330	100	3½x2⅞x2⅞	N	6.03

UNIVERSAL OUTPUT

Stancor No.	Application	Mtg.	Net Each
A-3856	Sgl or PP Pl (4M to 14M) to VC	Q	$1.74
A-3822	Sgl Pl (7M to 10M) to VC	Q	1.65
A-3848	Sgl Pl (7M to 16M) to VC	Q	2.34
A-3823	Sgl or PP Pl (4M to 14M) to VC	Q	1.86
A-3850	Sgl or PP Pl (4M to 14M) to VC	J	2.16
A-3825	Sgl Pl (1500 to 4500) to VC	Q	2.37
A-3824	Sgl or PP Pl (6M to 10M) to VC	Q	2.97
A-3849	Sgl Pl (1500 to 10M) to VC	Q	1.89
A-3880	PP Pl (4M to 14M) to VC	Q	3.57
A-2855	PP Pl (4M to 14M) to VC	L	3.18
A-3890	PP Pl (4M to 14M) to VC	TD	4.89
A-3852	PP Pl (4M to 14M) to VC	J	2.40
A-3870	PP Pl (4M to 14M) to VC	Q	2.97
A-3830	PP Pl (3M to 10M) to VC	J	3.24

LINE TO VOICE COIL

Stancor No.	Output	Impedance, Ohms	Mtg.	Net Each
A-8101	5 watts	Pri-500; Sec-3.2, 6-8	Q	$1.32
A-3820	40 watts	Pri-2M, 1500, 1M, 500 Sec-15, 8, 4	D	9.12
A-3818	25 watts	Pri-1500, 1M, 500 Sec-15, 8, 4	J	3.27
A-3882	25 watts	Pri-500, 333, 250 Sec-15, 8, 4	D	5.58
A-3883	25 watts	Pri-500; Sec-15, 8, 6, 4	J	2.82
A-3837*	15 watts	Pri-500 Sec-8, 4, 2.65, 2.35, 2, 1.5, .7 .5, .3, .2, .1, .05	J	3.30
A-7947	8 watts	Pri-2M, 1500, 1M, 500 Sec-6	Q	1.92
A-7949	12 watts	Pri-2M 1500, 1M, 500 Sec-6-8	J	2.55
A-8104	10 watts	Pri. 3M, 2M, 1.5M, 1M, 500; Sec. 16, 8, 4	J	3.66
A-3838‡	30 watts	Pri-500, 250, 175, 150, 140, 125, 100, 85, 45, 14, 4, .7	B	4.41

*Designed to operate one or more speakers in parallel across a 500 ohm line. ‡Designed to operate one or more speakers in series across a 500 ohm line, or to match unequal lines.

CRYSTAL RECORDER OUTPUT Type A Mounting

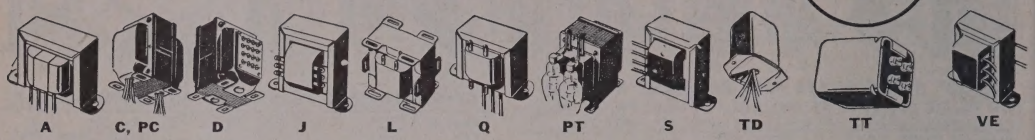
Stancor No.	Application*	Net Each
A-3853	7M ohm Pl. to 70M cutter or 4 ohm VC	$3.57
A-3854	7M ohm Pl. to 70M cutter 4 ohm VC	3.96
A-3859	PP .0M ohm Pl. to 70M ohm cutter or 4 ohm VC	3.84
A-3860	PP 10M ohm Pl. to 70M ohm cutter 4 ohm VC	4.32

*Models A-3853 and A-3859, 5 watts. Others, 10 watts.

AUTO RADIO VIBRATOR TRANSFORMERS

Stan. No.	Replaces	Net Each	Stan. No.	Replaces	Net Each
P-4064	Delco 7240519	$7.05	P-6472	Col.-Detr. D71014, Col.-Bend. C217020 Col.-Mot. C71014 Mot. 25B70950	$4.56
P-4065	Delco 7255881	6.54			
P-6470	Regal 140-111	4.59			
P-6471	Mot. 25B472533	4.56			
P-6473	Zenith 95-1066	5.19	P-6476	Col.-Det. D70267 Col.-Mot.-Det. C70267	4.68
P-6474	Zenith 95-1066	4.74			

TRANSFORMERS by STANCOR



INPUT TRANSFORMERS

Microphone or Line to Line

Stancor No.	Impedance	H x W x D In.	Mtg.	Net Each
A-4350†*	Pri-500/333/200/125/50	2x3¼x1¾	Q	$3.90
A-4407*	Sec-500/333/200/125/50	3⅜x2⅝x3¼	D	7.86

†Has dual primary. When properly connected, the 500 and 200 ohm sections are center-tapped. *Static shield between Pri. and Sec.

Microphone, Pickup or Line to Grid

A-4705	Pri-200/70 ohms Sec-80M	1⅜x2⅜x1⅜	A	$1.92
A-4706	Pri-100 Sec-60M	1⅜x2⅜x1½	A	1.95
A-4708	Pri-200CT Sec-57M	2x2⅜x1⅝	J	2.64
A-4351*	Pri-500/333/200/125/50 Sec-89,000	2 11/16x2¾x2 3/16	TD	4.17
A-4352*	Pri-500/333/200/125/50 Sec-89,000	2x3¼x1¾	Q	3.63
A-4709	Pri-30/15/8/4 Sec-106,000	2 11/16x2¾x2 3/16	TD	4.68
A-4742	Pri. 100; Sec. 400,000 CT	2 5/16x2⅞x1¾	S	2.82
A-4743	Pri. 100; Sec. 400,000 CT	2 5/16x2⅞x2⅛	VE	3.87

*Has dual primary. When properly connected, the 500 and 200 ohm sections are center-tapped.

INTERCOMMUNICATOR AND TRANSCEIVER

A-4744	Pri-4 Sec-25,000	1⅜x2⅜x1½	VE	$1.68
A-4747	Pri-70 ohms; Sec-1.3 meg.	1 7/16x1 5/16x1¼	VE	2.16
A-4748	Pri-45 or 50 ohms; Sec-50M	2⅝x2 3/16x2¼	A	1.86
A-3833	Pri-200 and 5,000 Sec-60,000	1⅝x2⅞x1½	A	2.58

PLATE TRANSFORMERS

DC output rated at load terminals of single-section, reactor-input filter, ICAS with single-section capacitor-input filter. Primary, 117 volts, AC. **Mounting PC.**

Stancor No.	Secondary AC Volts	DC Output Volts	DC Output Ma.	Filter Input	Rectifier	Net Each
PC-8301	415–0–415	300 425	200 160	Reactor Capacitor#	5U4G 5U4G	$7.23
PC-8302	515–0–515	385 500	235 200	Reactor Capacitor#	5U4G 5R4GY	9.27
PC-8303	665–0–665	500 750	250 200	Reactor Capacitor#	5R4GY 5R4GY	11.73
PC-8304	750–0–750	600 850	265 200	Reactor Capacitor#	2-5R4GY 5R4GY	13.14
PC-8305	920–0–920	750 1000	250 200	Reactor Capacitor#	2-5R4GY 5R4GY	13.71
PC-8306	920–0–920	750 1100	150 125	Reactor Capacitor	5R4GY 5R4GY	13.92
	500–0–500	380 550	150 125	Reactor Capacitor#	5U4G 5U4G	

#Capacitor input rating is for intermittent duty.

DC output rated at load terminals of single-section, reactor-input filter with full-wave mercury-vapor rectification. 117 volts, AC.

Stancor No.	Secondary AC Volts	DC Volts	DC Ma. CCS	DC Ma. ICAS	Mtg.	Shpg. Wt.	Net Each
PT-8311	1200–0–1200	1000	225	280	PT	13.0	$15.12
PT-8312	1200–0–1200	1000	325	405	PT	22.2	25.02
PT-8313	1475–0–1475	1250	250	310	PT	22.3	23.97
PT-8314	1790–0–1790	1500	225	280	PT	24.0	27.66
PT-8315	2065–0–2065	1750	200	250	PT	24.5	27.90

PLATE SUPPLY TRANSFORMERS

Designed primarily to deliver the rated DC voltage and current outputs when used with full-wave mercury-vapor rectifier tubes in conjunction with a two section filter employing choke input and two 2 mfd condensers working into a resistive load.

Stan. No.	DC Volts	DC Ma	Wt. Lbs.	H x W x D Inches	Mtg.	Net Each
P-8027	1250, 1000	500	45.2	7¾x7⅜x9	FS	$48.54
P-8029	1500–1250	500	65	11¼x7⅜x8¾	FS	67.41
P-8031	1750–1500	500	65.5	11¼x7⅜x8¾	FS	66.36
P-8032	2000–1750	300	46.0	7¾x7⅜x9¼	FS	56.73
P-8033	2000–1750	500	77.0	11¼x7⅜x9½	FS	83.01
P-8034	2500–2000	300	62.8	11¼x7⅜x8¾	FS	80.70
P-8035	2500–2000	500	80.0	11¼x7⅜x9¾	FS	88.14
P-9920	2500–2000	350 500	122.0	9⅛x11⅛x13⅞	Y	137.91

INTERSTAGE TRANSFORMERS

PUSH-PULL INPUT. Single Plate (7,000 to 20,000 ohms) to push-pull class "A" grid. All pri. are rated at 10 Ma DC except A-4208 at 15 Ma. A-53 Sing. Plate to Sing. Grid.

Stancor No.	Ratio	H x W x D In.	Mtg.	Net Each
A-52-C	1:2	1⅜x2⅜x1⅜	A	$1.65
A-62-C	1:2	1⅝x2⅞x1½	A	1.86
A-53	1:3	1⅜x2⅜x1½	A	1.59
A-53-C	1:3	1⅜x2⅜x1⅜	A	1.62
A-63-C	1:3	1⅝x2⅞x1½	A	1.83
A-64-C	1:4	2x2⅜x1¾	A	2.19
A-73-C	1:3	2x3¼x1¾	A	2.28
A-4719	1:3	2 11/16x2¾x2 3/16	TD	4.47
A-4206†	1:3.25	3⅜x2⅝x2⅜	C	5.91
A-4745	1:2	2 11/16x2¾x2 3/16	TD	5.10

PUSH-PULL INTERSTAGE. Push-pull plates (7,000 to 20,000 ohms) to parallel or push-pull class "A" grids.

A-4208	1:14	3 5/16x2⅝x2⅝	C	$5.01
A-4777	1:1.5	3 5/16x2⅝x2⅝	C	5.70
A-4774*†	1:3	2 5/16x2⅞x1¾	S	2.76
A-4773*†	1:3	2 11/16x2¾x2 3/16	TD	4.68

*Primary is center-tapped and secondary has split winding, thus permitting ratios of 1:1, 3:1 and 6:1. May be used in either step-up or step-down applications. †Has a pie-wound split secondary.

HIGH FIDELITY OUTPUT TRANSFORMERS

Max. power level, 50 watts. Frequency response excellent from 20 to 20,000 cps. Extremely low level of intermodulation distortion over entire range and at any power level. Type "C" upright shell mounting for all units. Shpg. Weight, 6.5 lbs. Size: 4 5/16" H x 2¾" W x 3 1/16" D.

Stancor No.	Pri. Z (PP) Ohms	Sec. Z Ohms*	Max. Watts	Max. Pri. DC/Half	Net Each
A-8050	1500	8, 16	50	200	$12.27
A-8051	2500	8, 16	50	150	12.27
A-8052	3000	8, 16	50	175	12.27
A-8053	5000	8, 16	50	150	12.27
A-8056	6600	8, 16	50	125	12.27
A-8054	9000	8, 16	50	100	12.27
A-8060	1500	500	50	200	12.27
A-8061	2500	500	50	150	12.27
A-8062	3000	500	50	175	12.27
A-8063	5000	500	50	150	12.27
A-8066	6600	500	50	125	12.27
A-8064	9000	500	50	100	12.27

*Where more than one secondary impedance is shown, only one value is to be used at any time.

NEW TINYTRANS—MTG. TT

These miniature high fidelity audio transformers have a response of 1 db, 30-15,000 cps. Max. level, 0 db. Nickel steel laminations and stud-type terminals. Cased and potted in ⅞" square, anodized aluminum cans with phenolic terminal boards. Total height, 1¼". Case has two threaded (2-56) inserts for easy mounting. Entire unit weighs only 1.3 ounces.

Stan. No.	Application	Pri. Z*	Net Each
TT-11	Mic., Pickup or Line to 1-Grid	50, 200/250, 500/600	$8.49
TT-12	Mic., Pickup or Line to PP Grids	Same as TT-11	8.85
TT-13	Dyn. Mic. to Single Grid	7.5/30	8.07
TT-14	Single Plate to Single Grid	15,000†	6.96

*Secondary Z, 50,000 ohms except for TT-14, 60,000 ohms.
†No DC in Primary.

STANCOR TRANSFORMERS IN THE WILLIAMSON HIGH FIDELITY CIRCUIT

The full potentialities of the famous Williamson Amplifier are realized with the Stancor Model **A-8054** high fidelity output transformer, the **PC-8412** power transformer and the **C-1411** filter choke. Using these components you can build this circuit at a new low cost.

The frequency curve remains flat at 20 to 50,000 cycles from 0.5 watts to an 8 watt level. Intermodulation distortion of this circuit measures only 3% at 8 watts output. Total harmonic distortion, at 1000 cycles, is extremely low and can be considered non-existent below the 10 watt power level.

STANCOR COMPONENTS

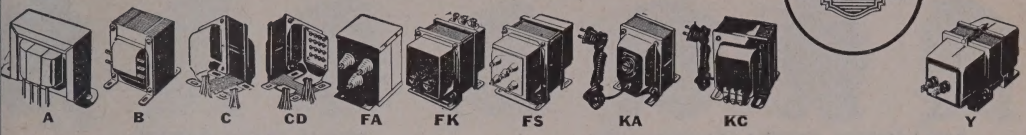
Stancor No.	Component	Net Each
A-8054	High Fidelity Output Transformer	$12.27
PC-8412	Power Transformer	8.58
C-1411	Filter Choke	4.29

A set of two completely punched and finished chassis for this amplifier is available.

Stancor Model WM-8—Completely punched chassis. Net Each **$5.75**

Construction details, including schematic diagrams, parts lists and under-chassis photographs for wiring lay-outs, are given in Stancor Bulletin 382. Write for free copy.

TRANSFORMERS by STANCOR



DRIVER TRANSFORMERS

Single Drivers. Single plate to push-pull grids.

Stancor No.	Pri. Imp. Ohms	Pri/½ Sec. Ratio	Pri. Ma. DC	Mtg.	Net Each
A-4713	10,000	2:1	30	A	$1.80
A-4752	10,000	2/1.5/1:1	40	A	2.64
A-4292	10,000	2.5:1	20	A	1.89
A-4723	10,000	3:1	30	A	1.80
A-4210	1500–5M	3:1	40	C	4.47
A-4702	1500–5M	5:1	80	C	4.41
Push-Pull Drivers. P.P. Plates to P.P. Grids					
A-4208*	20M–30M	2.8:1	15	C	5.01
A-4701*	20M	3:1	25	C	5.76
A-4212	1500–5M	3.2:1	50	C	4.68
A-4416	3M-10M	5:1	40	C	5.22
A-4703*	3M-10M	5:1	95	C	5.70

*These units have split secondaries for individual bias adjustment and/or use of inverse feedback.

POLY-PEDANCE DRIVER TRANSFORMERS

Tapped to give usable ratios in Class "B" driver. Cap., 15 watts. Primary per side, 60 Ma. Type CD mtg. Wt., 3 lbs.

Stancor No.	Ratio Pri. to ½ Sec.	H x W x D In.	Net Each
A-4761	1.25:1, 1.4:1, 1.6:1, 1.8:1, 2:1, 2.2:1, 2.4:1	3 3/16 x 2 5/8 x 3 5/8	$9.99
A-4762	2.6:1, 3:1, 3.2:1, 3.4:1, 4:1, 4.5:1, 5:1	3 3/16 x 2 5/8 x 3 1/8	9.42
A-4763	1.25:1, 1.5:1, 1.75:1, 2:1, 2.25:1, 3.2:1	3 5/8 x 3 x 4	11.67
A-4765*	1:0.75, 1:0.85, 1:1, 1:1.25, 1:1.45, 1:1.75, 1:2, 1:2.25, 1:2.5, 1:2.75, 1:3.15	3 3/16 x 2 5/8 x 3 3/8	10.35

*Line Driver. Multi-tapped with pie-wound coils.

FILAMENT TRANSFORMERS

All Primaries are 115 volts, 60 cycles.

Stancor No.	Secondary V	Secondary Amps.	Wt. Lbs.	Dimensions H x W x D In.	Mtg.	Net Each
P-6133	2.5CT	5	1.5	2 11/16 x 3 1/16 x 2 1/4	S	$3.42
P-4083	2.5CT	6	2.2	3 3/16 x 2 5/8 x 2 3/8	C	4.56
P-3024	2.5CT	10	2.5	3 3/16 x 2 5/8 x 2 5/8	C	4.50
P-3060	2.5CT	10	2.5	3 1/2 x 2 7/8 x 2 1/2	B	4.14
P-3026	5CT	3	2.4	3 3/16 x 2 5/8 x 2 5/8	C	4.50
P-4088	5CT	3	1.8	3 1/2 x 2 1/2 x 2 1/2	B	3.27
P-6467	5CT	3	1.4	2x3 1/16 x2	A	2.88
P-3062	5CT	6	2.3	3 1/2 x 2 1/2 x 2 1/2	B	3.81
P-6468	5CT	30	4.3	4 5/8 x 4 1/8 x 8 1/2	D	9.75
P-6135	5CT	10	3	3 1/8 x 2 1/2 x 2 7/8	N	4.23
P-6134	6.3CT	1.2	0.8	1 5/8 x 2 7/8 x 1 5/8	A	1.74
P-5014	6.3CT	3	2	3 1/8 x 2 1/2 x 2 1/2	B	3.09
P-6466	6.3CT	3	1.4	2x3 1/16 x2	A	2.79
P-4019	6.3CT	4	2.7	3 3/16 x 2 5/8 x 2 5/8	C	4.32
P-3064	6.3CT	6	2.4	3 1/8 x 2 1/2 x 2 7/8	B	3.75
P-4089	6.3CT	6	3.5	3 5/8 x 3 x 3 1/8	C	4.95
P-6308	6.3CT	10	3.4	3 1/2 x 2 7/8 x 2 3/4	N	4.50
P-5015	7.5CT	4	2.7	3 1/8 x 2 1/2 x 2 7/8	B	3.81
P-6138	7.5CT	8	4.7	3 7/8 x 3 1/8 x 2 7/8	N	5.52
P-6139	10CT	8	4.9	3 7/8 x 3 1/8 x 3 1/8	N	5.58
P-4097	10CT	8	5.2	4x3 1/4 x3 5/8	C	6.06
P-5002	10CT	12	14.7	5 1/8 x 4 1/4 x 8 1/2	FA	16.05
P-3020	11CT	10	7.7	4 3/4 x 4x3 1/2	C	8.97
P-8130	12.6CT	2	1.4	2x3 1/4 x2	A	3.09
P-6469	25.2	1	1.4	2x3 1/4 x2	A	2.94

ISOLATION TRANSFORMERS

Step-down units have overall ratio of 2:1. All units have built-in electrostatic shields grounded to core and frame. Adjustment for high and low line voltage inputs permitted by three primary taps. All units for 50-60 cycle, single phase operation.

Straight Isolation (125/115/104 v to 115 v)

Stancor No.	Watts	Mtg.	H x W x D In.	Lbs.	Net Each
P-6410	50	K	3 9/16 x 2 15/16 x 3 1/8	3.7	$ 6.18
P-6160	100	KA	4 3/4 x 4x3 5/8	7	11.40
P-6161	250	KA	4 3/4 x 4x5 5/8	14.2	21.45
P-6298	500	FK	7 5/8 x 6 1/8 x 7 1/8	28	33.57
P-6125	1000	FK	7 3/4 x 7 3/8 x 6 7/8	34.8	44.01
Step-Down Isolation (250/230/210 v to 115 v)					
P-6383	100	KA	4 3/4 x 4x3 5/8	7.3	12.48
P-6385	250	KA	4 3/4 x 4x5 5/8	14.2	20.22
P-6387	500	FK	7 5/8 x 6 1/8 x 7 1/8	29.5	34.65
ISOLATION TESTING TRANSFORMER					
P-6415	350	KC	5 3/8 x 4 1/2 x 5 3/4	17	18.15

"POLY-PEDANCE" MODULATION

Multi-tapped units to match all common impedances of Cl. B modulator (2M-20M ohms) to Cl. C load imped. of 2M-20M ohms.

Stancor No.	Max. Watts	Max. Pri. DC	Max. Sec. DC	Dimensions H x W x D In.	Mtg.	Net Each
A-3891	15	100 ma	100 ma	3 5/16 x 2 5/8 x 2 7/8	D	$8.16
A-3892	30	150 ma	150 ma	4x3 1/4 x3 5/8	D	10.32
A-3893	60	180 ma	180 ma	4x3 1/4 x4 1/8	D	11.16
A-3894	125	225 ma	225 ma	4 3/4 x4x4 5/8	D	13.50
A-3898	300	260 ma	260 ma	7 3/4 x7 3/8 x8 1/8	FS	42.39
A-3899	600	500 ma	500 ma	11 1/4 x7 3/8 x9	FS	84.42

Shipping Wts.: A-3891, 2.5 lbs.; A-3892, 4; A-3893, 6; A-3894, 9; A-3898, 37.9; A-3899, 70 lbs.

MODULATION TRANSFORMERS

Tapped to give wide range impedances for correctly matching every type load. Impedance chart and instructions with each unit.

Stan. No.	Pri. Imp.	Sec. Imp.	Watts	Mtg.	Wt. Lbs.	Net Each
A-3812	10M-CT	4000	5	A	0.7	$2.19
A-3871	4500	8500	10	TD	1.4	3.99
A-3845	10M-CT	8000/6500/5000/3000	25	C	2.8	5.01
A-3808	3800/3300-CT	10000/7500/5000/4000	60	D	7.7	11.25
A-3829	9M/6900-CT	6250/5000/4000/3300	175	D	11.4	14.25

FILTER CHOKES

Stan. No.	Hys.	Ma.	Ohms	H x W x D In.	Mtg	Lbs.	Net Each
C-1515	20.0	15	900	1 5/8 x 2 7/8 x 1 1/2	A	0.7	$1.32
C-1706	4.5	50	300	1 3/8 x 2 3/8 x 1 3/8	A	0.4	1.11
C-1707	7.0	50	550	1 3/8 x 2 3/8 x 1 3/8	A	0.4	1.17
C-1003	16.0	50	580	2x3 1/4 x1 3/4	A	1.1	1.47
C-1708	13.0	65	500	2x3 1/4 x1 3/4	A	1.0	1.83
C-1355	8.0	75	290	2 1/16 x2 5/16 x1 3/4	L	1.0	1.83
C-1002	15.0	75	400	2 1/4 x3 3/4 x2 1/4	A	1.7	1.95
C-1420	16.0	80	360	3 3/16 x2 5/8 x2 5/8	C	2.5	3.24
C-1709	8.0	85	250	2x3 1/4 x2	A	1.4	2.04
C-2305	5.0	100	300	2 11/16 x2 3/4 x2 3/16	TD	1.5	2.82
C-1001	10.5	110	225	2 5/8 x4x2 1/4	A	2.3	2.67
C-2303	2.5	130	100	2x3 1/4 x1 3/4	A	1.0	1.86
C-1421	7.0	140	165	3 3/16 x2 5/8 x2 5/8	C	2.5	3.69
C-2304	2.3	150	60	2x3 1/4 x1 3/4	A	1.0	1.92
C-2309	3.0	150	90	2 1/4 x3 3/4 x2 1/4	A	1.7	2.31
C-1710	7.0	150	200	2 5/8 x4x2 1/4	A	2.2	2.97
C-1410	4.0	175	100	3 3/16 x2 5/8 x2 5/8	C	2.4	3.78
C-1646	5.0	200	90	4x3 1/4 x3 3/8	C	4.5	5.40
C-1411	4.5	200	80	3 5/8 x3x3 1/8	C	3.5	4.29
C-1721	8.5	200	120	3 7/8 x3 1/8 x3	N	4.4	4.92
C-1703	4.0	250	60	3 1/2 x2 7/8 x3 1/8	B	4.2	5.46
C-1412	4.0	250	60	3 5/8 x3x3 1/2	C	4.3	6.27
C-2308	8.0	300	80	4 3/4 x4x3 7/8	C	7.8	8.25
C-2328	0.8	375	25	2 1/2 x3 3/4 x2	A	1.5	3.03
C-1414	7.5	400	60	4 3/4 x4x5 1/8	D	11.8	11.88
C-1415	6.0	500	75	7 5/8 x6 1/8 x7	FS	23.7	27.48

SWINGING CHOKES

C-1718	13.5-3.5	15-150	130	3 3/16 x2 5/8 x2 1/2	C	2.3	$3.81
C-1400	12-2	17.5-175	100	3 3/16 x2 5/8 x2 5/8	C	2.4	4.26
C-1401	12-2	20-200	80	3 5/8 x3x3 1/8	C	3.5	4.86
C-1645	12-2	20-200	90	4x3 1/4 x3 3/8	C	4.5	5.58
C-1702	12-2	25-250	60	3 1/2 x2 7/8 x3 1/8	B	4.3	5.58
C-1402	12-2	25-250	60	3 5/8 x3x3 1/2	C	4.3	6.27
C-1720	20-4	30-300	80	4 5/8 x3 3/4 x3 1/2	N	7.2	7.98
C-2307	20-4	30-300	80	4 3/4 x4x3 7/8	C	7.9	9.09

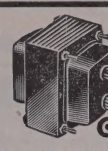
SMOOTHING CHOKES FOR AC-DC POWER SUPPLIES

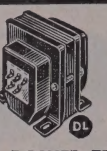
Stan. No.	Inductance DC Ma.	DC Ohms	Mtg. Type	Dimensions H x W x D	Wt. Lbs.	Net Each
C-1080	3.5 hy. @ 50 ma.	200	A	1 5/8 x2 7/8 x1 1/2	0.7	$1.29
C-1325	5.0 hy. @ 50 ma.	250	A	1 5/8 x2 7/8 x1 1/2	0.7	1.38
C-1277	7.0 hy. @ 50 ma.	300	A	1 5/8 x2 7/8 x1 1/2	0.7	1.53
C-1723	4.5 hy. @ 50 ma.	325	A	1 3/8 x2 3/8 x1 3/8	0.7	1.20
C-1227	7.0 hy. @ 50 ma.	350	A	1 5/8 x2 7/8 x1 1/2	0.7	1.50
C-1279	8.5 hy. @ 50 ma.	400	A	1 5/8 x2 7/8 x1 1/2	0.7	1.32
C-1333	8.0 hy. @ 50 ma.	450	A	1 5/8 x2 7/8 x1 1/2	0.7	1.35
C-1215	9.0 hy. @ 50 ma.	500	A	1 5/8 x2 7/8 x1 1/2	0.7	1.23

AUDIO CHOKES

Stancor No.	Hys.	Ma.	Ohms	H x W x L In.	Mtg.	Net Each
C-1003	16	50	580	2x3 1/4 x1 3/4	A	$1.47
C-2301	135	5	6500	2 11/16 x2 3/4 x2 1/16	TD	3.81

Merit Transformers





REPLACEMENT OUTPUT TRANSFORMERS

Secondary impedance 3.5 ohms. All mountings Figure A, except A2927, which is Mounting Figure B.

Merit No.	Pri. Imp.	Max. Watts	Size, Inches H	W	D	Net Each
A-3025	2500	3	1 3/16	1 7/16	7/8	$0.99
A-3026	5000	3	1 3/16	1 7/16	7/8	.99
A-2927	8000	3	1 5/8	1 7/8	1	1.05
A-2928	2000	5	1 3/8	2 3/8	1 1/4	1.14
A-2930	5000	5	1 3/8	2 3/8	1 1/4	1.20
A-2935	5000 ct	18	2	3 1/4	1 5/8	2.25
A-2931	7000	5	1 3/8	2 3/8	1 1/4	1.20
A-2932	10,000	5	1 3/8	2 3/8	1 1/4	
A-2938	10,000 ct	5	1 3/8	2 3/8	1 1/4	1.65
A-2936	10,000 ct	10	1 5/8	2 13/16	1 1/2	1.80
A-2933	12,000	5	1 3/8	2 3/8	1 1/4	1.32
A-2934	15,000	5	1 3/8	2 3/8	1 1/4	1.20
A-2937	25,000 ct	5	1 3/8	2 3/8	1 1/4	1.50
A-3018	3500	8	1 5/8	2 13/16	1 1/2	1.80
A-3019	5000	8	1 5/8	2 13/16	1 1/2	1.80
A-3020	7000	8	1 5/8	2 13/16	1 1/2	1.80
A-3021	14,000 ct	12	2	3 1/4	1 5/8	2.16
A-3017	50,000 ct	5	1 3/8	2 3/8	1 1/4	1.65

To couple Push-Pull Plates to Line or Voice Coil. Sec. imp. 2-4-8-15-250-500 ohms. Type F mounting.

A-3027	10,000 ct	15	2	3 1/4	1 3/4	3.96
A-3028	5000 ct	20	2 5/16	3 11/16	2	4.50

FILTER TAPPED OUTPUT TRANSFORMERS Mtg. A.

Pri. has 3% and 6% Humbucking taps. Sec. Imp: 3-4 ohms.

A-3031	3000	5	1 3/8	2 3/8	1 1/4	1.44
A-3032	6000	5	1 3/8	2 3/8	1 1/4	1.44

DUAL PRIMARY OUTPUT TRANSFORMERS

Use with AC-DC portables. Sec. Imp. 3-4 ohms. **Mtg. A.**

A-3029	2000 or 6000	5	1 3/8	2 3/8	1 1/4	1.44
A-3030	2000or10000	5	1 3/8	2 3/8	1 1/4	1.44

HIGH FIDELITY OUTPUT TRANSFORMERS

Freq. Resp.: ±1DB, 30-20,000 cps. Sec. Imp: 4-8-16 ohms. **Mtg. D.**

A-3100	5000 & 3000 ct	20	3 7/8	3 3/16	3 5/8	11.40
A-3101	10000 & 6600 ct	20	4 1/4	3 1/2	3 7/8	11.40

HEAVY DUTY OUTPUT TRANSFORMERS

High level type to couple to line or speaker. Sec. imp.: 4-8-15-250-500 ohms. Mounting: Type D.

A-3127	2500	8	3 1/8	2 5/8	2 1/2	3.90
A-3128	8000 ct*	14	3 1/2	2 15/16	3 1/8	6.30
A-3129	4300 ct*	25	3 1/2	2 15/16	3 3/8	
A-3130	6600 ct*	34	3 7/8	3 3/16	3 3/8	6.30
A-3131	5000 ct	30	3 1/2	2 15/16	3 1/8	5.25
A-3132	10,000 ct	25	3 1/2	2 15/16	3 1/8	
A-3133	3300 ct	55	4 5/8	3 13/16	4	8.25

*10% feedback winding.

UNIVERSAL OUTPUT TRANSFORMERS

To provide correct coupling between output tubes and any speaker voice coil. Mtg. Type F, Except A-2904 which is Type G.

Merit No.	Tube	Ohms Impedance Primary	Sec.	Max. Watt	Net Each
A-2900	S or PP	4M, 7M, 8M, 10M, 14M'ct	.17-32	4	$1.65
A-2901	S or PP	4M, 7M, 8M, 10M, 14M'ct	.17-32	8	1.80
A-2902	Single	1.5M, 2M, 4M, 5M, 7M, 10M	.1-40	10	1.80
A-2903	Single	2M, 4.5M, 7M, 10M	3.2	4	1.56
A-2904	S or PP	4M, 7M, 8M, 10M, 14M, ct	.17-32	18	2.40
A-2905	S or PP	3M, 5M, 7M, 8M, 10M, ct	.17-32	24	3.30
A-2998	Single	3.5M, 5M, 7M, 10M	3.2	3	1.50
A-2999	Single	12M, 15M, 18M, 25M	3.2	3	1.59

REPLACEMENT FILTER CHOKES

Inductance Ratings are at 10 V. 60 cycles, with rated current flowing as recommended by the R. M. A. Mounting Figure A.

Merit No.	Ind. Hen.	MA	DC Ohm	Volts Insul.	Size, Inches H	W	D	Net Each
C-2974	2.0	200	50	1500	2	3 1/4	1 5/8	$2.31
C-2977	4.5	50	200	1500	1 5/8	2 13/16	1 1/2	1.32
C-2975	5.5	50	330	1500	1 5/16	2 3/8	1 1/8	1.20
C-2976	8	40	500	1500	1 3/8	3 3/8	1 1/4	
C-2981	8.5	50	400	1500	1 5/8	2 13/16	1 1/2	1.32
C-2985	20	15	900	1500	1 5/8	2 13/16	1 1/2	
C-2987	16	50	550	1500	2	3 1/4	1 5/8	1.50
C-2990	15	75	400	1500	2 1/4	3 11/16	2 1/8	1.98
C-2993	10.5	110	220	1500	2 9/16	4	2 1/4	2.64

POWER TRANSFORMERS

Receiver Replacement Type. Pri.: 115V 60 cycle AC. Leads RMA color coded. Mounting: Figure C.

Merit No.	V. CT	DC MA	Filaments Rec. V.	Rec. A.	Htr. V.	Htr. A.	Size, In. H. x W. x D.	Net Each
P-3045	120	50	....	....	6.3	1.5	2 3/16x2 3/8x1 5/8	$3.00
P-3047	240	50	....	....	6.3	2.5	2 1/2x3x2	3.45
P-3048	260	90	....	....	6.3	3.5	2 1/2x3x2 5/8	4.65
P-2949	240	40	5	2	6.3 ct	2	2 1/2x3x2 1/2	3.90
P-2958	240	50	5	2	6.3	2.6	2 1/2x3x3	3.90
P-3051	260	70	5	2	6.3	3	2 1/2x3x3	4.80
P-3052	280	90	5	2	6.3	5	2 13/16x3 3/4x3 1/2	5.40
P-2957	350	50	5	2	6.3 ct	2.6	2 13/16x3 3/8x3	4.35
P-2965	325	40	5	2	2.5 ct	4	2 1/2x3x2 3/4	4.35
P-2966	350	70	5	3	2-2.5ct	9/3.5	2 13/16x3 3/4x3 5/8	5.10
P-2967	350	90	5	3	2.5 ct	12.5	3 1/8x3 3/4x4 1/16	6.45
P-2968	400	110	5	3	2-2.5ct	15/3.5	3 3/4x4 1/2x3 13/16	7.80
P-2950	325	40	5	2	6.3 ct	2	2 1/2x3x2 7/8	4.05
P-2951	325	70	5	3	6.3 ct	3.5	2 1/2x3x3 7/16	4.65
P-2952	350	90	5	3	6.3 ct	3.5	2 13/16x3 3/8x3 3/4	5.10
P-2953	350	120	5	3	6.3 ct	4.7	3 1/8x3 3/4x3 13/16	5.85
P-2954	375	150	5	3	6.3 ct	5	3 1/8x3 3/4x4 5/16	7.50
P-2955	400	200	5	3	6.3 ct	5	3 3/4x4 1/2x4 1/8	8.40
P-2956	435	250	5	3	6 3 ct	3	3 3/4x4 1/2x4 3/4	10.50
Fully Shielded Upright Mounting: Figure D								
P-3147	240	50	....	....	6.3	2.5	3 1/8x2 5/8x2 1/2	3.60
P-3148	260	90	....	....	6.3	3.5	3 1/8x2 5/8x3 1/8	4.20
P-3149	240	40	5	2	6.3 ct	2	3 1/8x2 5/8x2 5/8	3.90
P-3150	325	40	5	2	6.3 ct	2	3 1/8x2 5/8x2 13/16	4.05
P-3154	275	50	5	2	6.3	2.6	3 1/8x2 5/8x3 1/8	5.25
P-3160	350	50	5	2	6.3 ct	2.6	3 1/2x2 15/16x3 1/16	4.50
P-3151	325	70	5	3	6.3 ct	3.5	3 7/8x3 3/16x3 3/16	4.65
P-3152	350	90	5	3	6.3 ct	3.5	4 1/4x3 1/2x3 7/16	5.10
P-3153	350	110	5	3	6.3 ct	4.5	4 5/8x3 13/16x3 7/16	5.85
P-3155	400	200	5	3	6.3 ct	5	4 5/8x3 15/16x4 1/4	8.40

INTERSTAGE TRANSFORMERS

To couple a Single Plate to a Single Grid. **Mtg. Fig. A.**

Merit No.	Ohms. Pri.	Imped. Sec.	Turn Rat.	Pri. MA	Dimensions H x W x D	Net Each
A-2910	10000	90000	3:1	10	1 3/8x2 3/8x1 1/4	$1.80
A-2911	10000	90000	3:1	10	1 5/8x2 13/16x1 1/2	1.80
To couple a Single Plate to Push-Pull Grids. **Mtg. Fig. A.**						
A-2914	10000	90000 ct	3:1	10	1 3/8x2 3/8x1 1/4	1.65
A-2915	10000	90000 ct	3:1	10	1 5/8x2 13/16x1 1/2	1.80
A-2916	10000	90000 ct	3:1	10	2x3 1/4x1 5/8	2.25
To couple Push-Pull Plates to Push-Pull Grids. **Mtg. Fig. A.**						
A-2912	10000 ct	90000*	3:1	10†	2x3 1/4x1 5/8	2.70
A-2913	20000 ct	20000 ct	1:1	10†	1 5/8x2 13/16x1 1/2	2.16
A-2917	20000 ct	45000 ct	1.5:1	10†	2x3 1/4x1 5/8	2.70

*Split secondary. †Per side.

INPUT TRANSFORMERS

For coupling microphone or line to single or push-pull grids.

Merit No.	Ohms Imped. Pri.	Sec.	Turn Rat.	Coupling	Mtg Fig.	Net Each
A-2923	3.2	50,000	1:125	To S-G	A	$1.65
A-2918	100	400,000 ct	1:64	To S-or PP-G	A	2.70
A-2919	200/50	100,000	1:22	To S-G	A	2.70
A-2924	500/125	100,000 ct	1:14	To S-or PP-G	A	3.00

UNIVERSAL LINE TRANSFORMERS

To couple various line impedances to a voice coil.

Merit No.	Impedance Primary	Sec.	Watts	Fig.	Net Each
A-2906	5K-10K-15K-20K	3.2, 6-8	10	F	$1.95
A-2907	5K-10K-15K-20K	3.2, 6-8	18	G	3.15
A-2908	5K-10K-15K-20K	6-8, 16	24	F	3.30
A-2909	45-50	3.2, 6-8	8	G	1.80
A-3005	500	3.2, 6-8	5	A	1.35
For use with 70.7 volt line as recommended by RMA. Rated power furnished on lowest tap. Other taps reduce power in 3db steps.					
A-3013	1M-2M-4M-8M-16M	3.5, 7	5	F	$1.95
A-3014	5K-1M-2M-4M-8M	4-8-16	10	F	2.40
A-3015	275-550-1100-2200-4400-8800	4-8-16	18	G	3.45
A-3016	210-420-840-1680-3360-6720	4-8-16	24	F	3.75

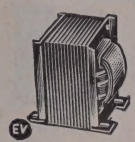
TUBE TO LINE TRANSFORMERS

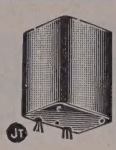
For coupling Single or Push-Pull Plates to Line or Mixer.

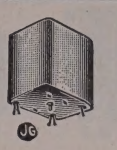
Merit No.	Ohms Impedance Primary	Secondary	Pri. Ma.	Mtg. Fig.	Net Each
A-2925	20,000 ct	500/125	10	A	$3.00
A-2926	20,000 ct	200/50	10	A	3.00
A-3023*	5M-10M-20M ct	500/333/200/125/50	15	F	3.00
A-3024*	5M-10M-20M ct	500/333/200/125/50	50	DL	6.60

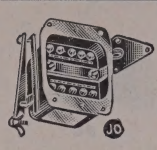
*20,000 Ohm Center Tapped.

Merit Transformers









INDUSTRIAL-AMATEUR TRANSFORMERS

OUTDOOR TYPE UNIVERSAL LINE TRANSFORMERS

o couple various line impedances to a voice coil. Universal ounting bracket. Mounting figure JO. Size 4¼" high x 4 7/16" ide x 3 9/16" deep.

Merit No.	Ohms Impedance Primary	Sec.	Watts	Net Each
A-4040	250-500-1000-1500-2000	4-8-16	8	$6.60
A-4041	250-500-1000-1500-2000	4-8-16	12	7.05
A-4042	250-500-1000-1500-2000	4-8-16	25	9.75
A-4043	45-50	4-8	12	7.05

DRIVER TRANSFORMERS

o couple driver plates to amplifier grids. Types A-2920, 2921, 922, **Mtg. Fig. A.** Types A-3120, A-3121, **Mtg. Type DL.** ypes A-3123, A-3124, A-3125, A-3126, **Mtg. Type D.**

Merit No.	Driver Tube	Output Tube	Turn Ratio Pri. to ½ Sec.	Net Each
-2920	6C5, 30, 49, 1H4	Sing. 1J6, 19, PP 30, 49	2.5:1	$1.89
-2921	6F6, 42, 2A5	PP 6F6, 6L6	1.7:1,1.5:1,1.3:1	2.64
-2922	6A6, 6C5, 6N7, 46	Sing. 6A6, 6N7, PP 46	5:1, 4:1, 3:1, 2.5:1	3.15
-3123	PP 6A6, 53 PP6C5,6J5,6N7	PP 6N7 PP 6L6, 6A6, T21, 53	5:1*	3.90
-3124	46, 6F6, 59, 2A5 42	PP 46, 59, 6L6, 807	2.2:1	3.90
-3125	6F6, 2A5, 47, 42	PP 6L6	1.4:1*	5.55
-3126	PP 2A3, 6L6, 45, 6V6, 6F6	PP 800, 203A, 811, 812, RK18, RK58, T20, TZ40, T55, 812A, 807, 809, 838, 845, 35, 100TH	2:1	4.50
-3120	Line to Grid	Class B Grids 15 Watt Cap.	1:.75, 1:.85, 1:1, 1:1.25, 1:1.45, 1:1.75	8.10
-3121	Line to Grid	Class B Grids 30 Watt Cap.	1:2, 1:2.25, 1:2.5, 1:2.75, 1:3	9.15

plit Secondary.

PLATE TRANSFORMERS

r small Transmitters, Amateur, or Experimental use. D.C. volt-e ratings are approximate values obtained at output of a 2 sec-n choke input filter using mercury vapor rectifier tubes. Primary 5 volts, 60 cycles. Mounting figure D.

Merit No.	Sec. Rms. Volts	Sec. D. C. Volts	Sec. D. C. M. A.	Dim., In. H. x W. x D.	Net Each
3175	550-550	400	150	3 9/16x3x3 7/8	$6.30
3157	660-660 ** / 550-550	500 / 400	250	4 5/8x3 13/16x4 3/8	8.70
3158	1080-1080 / 500-500	*1000 / 400	125 / 150	4 5/8x3 13/16x5	10.80
3159	900-900 / 800-800	750 / 600	225	4 5/8x3 13/16x5 1/8	10.35
3167††	1450-1450 / 1175-1175	1200 / 1000	300	5 3/4x6 1/8x4	25.80
3168††	2100-2100 / 1800-1800	1750 / 1500	300	5 3/4x6 1/8x4 1/2	33.00
4062†	2900-2900 / 2385-2385	2500 / 2000	300	8 1/2x6 1/2x5 5/8	48.00

Has 40 V. Bias Tap. *For dual operation with simultaneous e of both secondary ratings. †**Mtg. H.** ††**Mtg. EH.**

VIBRATOR TRANSFORMERS

aled in compound filled cases for interference or hash reduction. r operation from 6 volt battery and vibrator.

Merit No.	Sec. D.C. Volts to Filter	Sec. M.A.	Mtg.	Dim., In. H. x W. x D.	Net Each
2969	150	40	B	2 1/4x2 7/8x1 3/4	$3.15
2970	225	40	B	2 5/8x3 1/16x2 1/8	3.60
2971	250	50	B	2 5/8x3 1/8x2 1/4	3.90
2972	260	60	B	3x3 5/8x2 1/8	4.20
3068	260	60	C	2 3/4x2 5/8x1 7/8	3.00
4071	250	50	JT	3x2 3/8x2 1/8	4.65
4076	265	55	JG	3 1/4x2 3/8x2 5/8	4.50
4077	280	65	JT	3 7/8x2 1/4x2 3/8	4.80
4078	270	60	JT	2 5/8x2 9/16x2 3/4	4.35
4079	270	75	JT	3 1/4x2 3/8x2 1/2	4.95

r operation from 6 volt battery and vibrator or 115 volt 60 cycle.

erit lo.	H.V. Second. D.C. Volts	M.A.	Filament Volts	Amps.	Mtg.	Dim., In. H. x W. x D.	Net Each
3176	300	160	6.3 or 5 / 6.3	3 / 4.5	D	4 5/8x3 13/16x4 1/4	$9.00
3075	330	100	6.3	4	D	3 7/8x3 1/16x3 3/8	6.30

MODULATION TRANSFORMERS

Type A-3008, **Mtg. Fig. B.** Others **Fig. D.**

Merit No.	Output Tubes	Ohms Imped. Pri. Ct	Sec.	Watts	Net Each
A-3008	PP6AQ5, 6V6, 6F6, Sing. 6A6, 6N7, 53	10,000	4000-5000	10	$ 2.40
A-3109	PP2A3, 6A3, 6B4, 6L6, 45, 46, 59	6,000 / 3,800 / 3,000	5000-8000 / 10,000	25	5.40
A-3110	PP6L6, 807, RK-41, HY56, HY61, HK24	6,600 / 3,800	4000-5000 / 7½-10-12M	60	9.00
A-3113	PP800, 809, TZ-40, T-55, HK-54, RK-31, HY-40, 811, 807, 812	15,000 / 6,900	3000-4000 / 5000-6000	175	13.80

UNIVERSAL MODULATION TRANSFORMERS

Tapped Series-Parallel coils provide a wide range of modulation ratios. Primary Impedance 2000-20000. Secondary Impedance 2000-20000. Mounting figure DL.

Merit No.	Pri. M.A. Per Side	Watts	Max. Sec. M.A.*	Dim., In. H. x W. x D.	Net Each
A-3104	50	15	50/100	3 3/16x2 5/8x2 3/4	$6.90
A-3105	150	60	150/300	3 7/8x3 1/8x4 1/8	10.05
A-3106	220	125	220/440	4 5/8x2 13/16x4 5/8	13.50

*Series/Parallel.

FILTER INPUT OR SWINGING CHOKES

3000 volts insulation. Mounting figure D.

Merit No.	Induct. Henries	Current Rating M.A.	DC Res. Ohms	Dim., In. H. x W. x D.	Net Each
C-3187	4-16	150	210	3 1/8x2 5/8x2 3/4	$3.90
C-3188	4-16	200	140	3 1/2x2 15/16x3 1/2	4.80
C-3189	4-16	250	125	3 7/8x3 1/16x3 3/4	6.60
C-3190	3-14	300	80	3 7/8x3 3/16x3 3/4	6.90

FILTER SMOOTHING CHOKES

C-3180	10	150	210	3 1/8x2 5/8x2 3/4	3.90
C-3181	10	200	140	3 1/2x2 13/16x3 1/2	4.80
C-3182	10	250	125	3 7/8x3 3/16x3 3/4	6.60
C-3183	8	300	80	3 7/8x3 3/16x3 3/4	6.90

FILTER CHOKES

For small transmitter and amplifier applications. **Fig. D.**

C-3192	15	85	325	3 1/8x2 5/8x2 5/8	3.00
C-3193	10	110	200	3 1/8x2 5/8x2 5/8	3.00
C-3194	12	150	230	3 1/2x2 15/16x3 1/8	3.60
C-3195	15	150	180	3 7/8x3 3/16x3 3/8	5.25
C-3196	5	200	80	3 1/2x2 15/16x3 1/8	4.20

PHOTO-FLASH POWER TRANSFORMER

Primary for 117 v. 60 cy. or 4 v. vibrator. **Mtg. Fig. B.**

Merit No.	Secondary AC Volts	DC Ma.	Mtg. Center	Dimensions H. x W. x D.	Net Each
P-3065	1100	1.5	2 11/16	2 5/8x3 1/8x2	$4.80

STEP-DOWN AUTOTRANSFORMERS

Input 220-250 v. 60 cps. 110-125 volt primary cord and plug. Secondary receptacle.

Merit No.	Output Watts	Dimensions H.	W.	D.	Mtg. Fig.	Net Each
P-3161	80	3 1/2	2 15/16	3	D	$6.00
P-3162	150	3 7/8	3 3/16	3 5/8	D	8.25
P-3163	250	4 5/8	3 13/16	4	D	10.65
P-3164	500	4 5/8	3 13/16	4 3/8	D	13.50
P-4065	1000	7 1/4	6 5/8	5 5/8	H	30.00

ISOLATION TRANSFORMERS

Equipped with Pri. cord and plug. Sec. standard receptacle. Static shielded.

Merit No.	Pri. V.	Sec. V.	Watts	Dim., In. H. x W. x D.	Mtg. Fig.	Net Each
P-3177	117	105-15-25	350	5 5/16x4 1/2x5 1/4	D	$16.50

To provide isolation between line and associated circuits.

P-3096	117	117	40	3 1/8x2 5/8x2 5/8	B	4.35
P-3197	117	117	80	3 7/8x3 3/16x3 1/2	D	6.00

Equipped with line cord and standard receptacle. **Fig. D.**

P-3172	117	117	500	5 3/8x4 5/8x6 1/2	.....	30.00
P-3198	117	117	100	4 1/4x3 9/16x3 3/4	.....	11.25
P-3199	117	117	250	4 5/8x3 13/16x4 7/8	.....	21.00

Gramer-Halldorson Transformers

HS, HSC

PC

N-3

HT3-8
VT3-8
UBT

HC3-8
HS3-8

VC3-8
VS3-8

US, USC

UBL, WB

POWER—Plate and Filament, 117 V., 60 cps. Primaries

G-H No.	Plate A.C. Load V.	D.C. Ma.	Fil. No. 1 Volt	Fil. No. 1 A.	Fil. No. 2 Volt	Fil. No. 2 A.	Mtg. Type	Wt. Lbs.	Net Each
P9200	235-0-235	40	5	2	6.3 C.T.	2	US	2¼	$3.96
P9201	235-0-235	40	5	2	6.3 C.T.	2	HS	2¼	3.96
P9202	240-0-240	55	5	2	6.3 C.T.	2	US	2½	4.32
P9203	240-0-240	55	5	2	6.3 C.T.	2	HS	2½	4.32
P9204	250-0-250	70	5	2	6.3 C.T.	2.5	US	3¼	4.86
P9205	250-0-250	70	5	2	6.3 C.T.	2.5	HS	3¼	4.86
P9206	260-0-260	90	5	2	6.3 C.T.	3	US	4	5.52
P9207	260-0-260	90	5	2	6.3 C.T.	3	HS	4	5.52
P9208	270-0-270	120	5	3	6.3 C.T.	3.5	US	5	6.30
P9209	270-0-270	120	5	3	6.3 C.T.	3.5	HS	5	6.30
P9300	325-0-325	40	5	2	6.3 C.T.	2	US	2½	4.11
P9301	325-0-325	40	5	2	6.3 C.T.	2	HS	2½	4.11
P9302	325-0-325	55	5	2	6.3 C.T.	2	US	3¼	4.50
P9303	325-0-325	55	5	2	6.3 C.T.	2	HS	3¼	4.50
P9304	300-0-300	70	5	3	6.3 C.T.	3	US	4	5.16
P9305	300-0-300	70	5	3	6.3 C.T.	3	HS	4	5.16
P9306	340-0-340	70	5	2	6.3 C.T.	2.5	US	3⅞	5.16
P9307	340-0-340	70	5	2	6.3 C.T.	2.5	HS	3⅞	5.16
P9310	350-0-350	90	5	2	6.3 C.T.	3	US	4½	5.70
P9311	350-0-350	90	5	2	6.3 C.T.	3	HS	4½	5.70
P9312	300-0-300	120	5	3	6.3 C.T.	5	US	5½	6.57
P9313	300-0-300	120	5	3	6.3 C.T.	5	HS	5½	6.57
P9314	360-0-360	120	5	3	6.3 C.T.	3.5	US	5½	6.57
P9315	360-0-360	120	5	3	6.3 C.T.	3.5	HS	5½	6.57
P9316	375-0-375	150	5	3	6.3 C.T.	4.5	US	6	7.71
P9317	375-0-375	150	5	3	6.3 C.T.	4.5	HS	6	7.71
P9318	335-0-335	200	5 c.t.	3	6.3 C.T.	5	US	9½	9.54
P9321	370-0-370	275	5 c.t.	3	6.3 C.T.	7	HS	9½	11.10
P9400	440-0-440	130	5	3	6.3 C.T.	3.5	US	7	8.70
P9402	400-0-400	175	5	3	6.3 C.T.	4.5	US	8	8.85
P9403	400-0-400	175	5	3	6.3 C.T.	4.5	HS	8	8.85
P9404	400-0-400	200	5	3	6.3 C.T.	5	US	8¼	8.97
P9405	400-0-400	200	5	3	6.3 C.T.	5	HS	8¼	8.97
P9406	400-0-400	250	5	4	6.3 C.T.	5	US	10	10.50
P9600	600-0-600	200	5	3	6.3, 6.3	3,3	US	8½	10.77

POWER—Used with 6AX5, 6X4, 6X5, or Selenium Rectifiers

G-H No.	Plate A.C. Load Volts	D.C. Ma.	Fil. No. 1 Volt	Fil. No. 1 A.	Dimensions H x W x D	Mtg. Type	Net Each
P9100	125 ½ Wave	15	6.3	0.6	2 x2⅜x1⅜	VC5	$1.89
P9101	125-0-125	25	6.3	1.0	2⅜x2⅞x1¾	VC6	2.31
P9103	150 ½ Wave	25	6.3	0.5	2 x2 1/16x1¾	VS5	2.37
P9102	125 ½ Wave	50	6.3	2.0	2¼x3¾x2⅛	HC7	3.00
P9210	230-0-230	50	6.3	2.5	3⅛x2⅝x2⅝	US	3.75
P9211	230-0-230	50	6.3	2.5	2⅝x2½x3	HS	3.75
P9212	240-0-240	70	6.3	3.0	3⅛x2⅝x2⅞	US	4.26
P9213	240-0-240	70	6.3	3.0	2⅞x2½x3	HS	4.26
P9214	260-0-260	90	6.3	4.0	3½x3 x3½	US	4.80
P9215	260-0-260	90	6.3	4.0	3⅛x2⅞x3⅜	HS	4.80

SPECIAL PURPOSE POWER UNITS

G-H No.	Plate A.C. V.	D.C. Ma.	Fil. 1 V.	Fil. 1 Amp.	Fil. 2 V.	Fil. 2 Amp.	Fil. 3 V.	Fil. 3 Amp.	Net Each
P9912	1600	2	2.0†	1.75	6.3	0.3	6.3	0.3	$10.53
P9914	2700	2	2.0†	1.75	6.3	0.3	6.3	0.3	11.49
P9916	2400	5	2.5	2.0	2.5	2.0	....	.....	9.45
P9918	1500	10	2.5	1.75	2.5	2.1	....	.....	7.68
P9901	560*	50	5.0	2.0	6.3	1.5	6.3	0.6	5.25
P9903	700*	70	5.0*	2.0	2.5*	9.0	....	.....	6.30
P9905	700*	90	5.0*	3.0	2.5*	12.5	....	.....	6.45
P9907	800*	110	5.0*	3.0	2.5*	3.5	2.5*	15.0	7.80
P9909	700*	120	5.0*	3.0	2.5*	3.5	2.5*	12.5	8.85
P9908	640*	150	5.0	3.0	6.3	3.0	6.3	8.0	
P9910	800*#	175	5.0*	3.0	2.5	1.75	6.3	1.0	11.70
							6.3*	2.5	
P9911	800*	200	5.0	3.0	6.3*	5.3	6.3*	2.5	10.50
							**		11.10

†1.25 volt tap. *Center tapped. #80 volt tap. **50-24-18 volt, 25 W.

PRIMARIES FOR 117-VOLT, 60-CYCLE OPERATION

AUTO RADIO—6 Volt Vibrator Transformers

G-H No.	Sec. DC V. to Filter	Sec. Ma.	Mtg. Dim. H x W x D	Mounting Type	Wt. Lbs.	Net Each
V3800	150	40	2⅞x3⅛x2⅞	VC7	1¼	$3.12
V3801	225	40	2⅝x3⅛x2⅜	VC7	1½	3.57
V3802	250	50	3⅛x2½x2⅜	WB	2¼	3.90
V3803	250	50	3 1/16x2⅜x2½	PC7	3	4.65
V3804†	265	55	3¼x2⅝x2½	PC6	2½	7.17
V3805	250	60	3⅛x2½x2⅜	WB	2	4.17
V3806	270	60	2⅞x2¼x2¾	PC5	2¼	4.35
V3807	275	65	3 1/16x2⅝x2½	PC1	2¼	4.77
V3808	280	75	3⅛x2½x2⅝	WB	2¾	4.95

†Has internal hash filter.

6-Volt Vibrator or 115 Volt A. C. Primary

V3815	350 Fil. 6.3 V., C.T. 4.75A	135	4⅜x3¾x4½	US	10	10.11

FILTER CHOKES—Smoothing

G-H No.	Induct. Hys.	Ma. D.C.	D.C. Res.	Insulation	Dimensions H x W x D	Mtg. Type	Net Each
C5000	300	5	5000	2000	1⅝x2⅛x1½	HC5	$1.95
C5001	20	15	900	1500	1⅝x2⅞x1½	HC5	1.32
C5002	12	30	400	2000	1⅜x2⅜x1⅜	HC4	1.32
C5003	30	35	700	2000	2 x3¼x1¾	HC6	2.04
C5004	12	40	400	2000	1⅝x2⅞x1½	HC5	1.50
C5005	15	40	400	2000	2 x3¼x1¾	HC6	2.10
C5006	3.5	50	200	1500	1⅝x2⅞x1½	HC5	1.29
C5007	4.5	50	300	1500	1⅜x2⅜x1⅜	HC4	1.11
C5008	6	50	300	1500	1⅝x2⅞x1½	HC5	1.32
C5009	7	50	550	1500	1⅜x2⅜x1⅜	HC4	1.20
C5010	8.5	50	400	1500	1⅝x2⅞x1½	HC5	1.32
C5011	16	50	575	1500	2 x3¼x1¾	HC6	1.50
C5012	6	60	200	2000	1⅝x2⅞x1½	HC5	1.32
C5013	10	60	275	2000	2 x3¼x1¾	HC6	1.80
C5014	13	65	500	1500	2 x3¼x1¾	HC6	1.86
C5015	8	75	290	2000	2 x3¼x1¾	HC6	1.80
C5016	15	75	400	1500	2¼x3¾x2¼	HC7	1.98
C5017	16	80	350	1500	3¼x2⅝x2⅝	US	3.18
C5018	20	80	350	2000	2¼x3¾x2¼	HC7	2.13
C5019	8	85	250	2000	2¼x3¾x2¼	HC7	2.04
C5020	5	100	300	3000	2 x3¼x1¾	HC6	1.80
C5021	12	110	250	2000	2⅝x4 x3	HC8	2.64
C5022	12	110	250	2000	3¼x2⅝x3	US	3.30
C5023	8	120	350	2000	2⅝x4 x2⅛	HC8	3.15
C5024	2.5	130	100	2000	2 x3¼x1¾	HC6	1.86
C5025	8	130	110	2000	3¼x2⅝x3	US	3.69
C5026	2.3	150	60	1500	2 x3¼x1¾	HC6	1.92
C5027	7	150	200	1500	2⅝x4 x2¼	HC8	2.98
C5028	7.5	150	160	2000	3¼x2⅝x3	US	3.66
C5029	4	175	100	3000	3¼x2⅝x3	US	3.78
C5040	1.5	200	85	1500	1⅝x2⅞x1½	HC5	1.35
C5030	2	200	60	1500	2¼x3¾x2¼	HC7	2.31
C5031	4.5	200	80	3000	3⅝x3 x3⅛	US	4.35
C5032	8	200	125	3000	3½x2⅞x3¼	US	4.80
C5033	8.5	200	120	3000	3⅞x3⅛x3	UBL	5.25
C5034	15	200	150	5000	3½x3⅞x3½	US	7.50
C5035	4	250	60	3000	3½x2⅞x3⅛	UBT	5.37
C5036	4	250	60	3000	3⅝x3 x3½	US	6.27
C5037	1	300	45	1500	2¼x3¾x2¼	HC7	2.25
C5038	8	300	80	3000	4¾x4 x3⅞	US	8.10
C5039	15	350	150	5000	4¾x4 x5¼	US	11.25
C5041	0.8	375	25	1500	2¼x3¾x2	HC7	2.55

FILTER CHOKES—Swinging

C5400	4-14	150	130	2000	3⅛x2⅝x2½	US	$3.60
C5401	2-12	175	100	3000	3⅛x2⅝x3⅝	US	3.90
C5402	2-12	200	80	3000	3⅝x3 x3⅛	US	4.8[illegible]
C5403	2-12	250	60	3000	3⅝x3 x3½	US	6.1[illegible]
C5404	4-20	300	80	3000	4¾x4 x3⅞	US	8.10
C5405	5-15	350	100	5000	4¾x4 x4	US	9.90

FILAMENT—Single Secondary

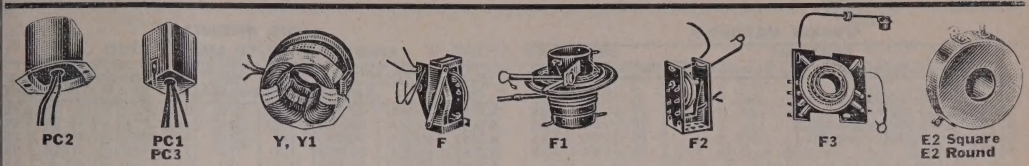
G-H No.	Primary	Secondary Volts	Secondary A.	Insulation	Dimensions H x W x D	Mtg. Type	Net Each
F5500	117	2.5	1.5	2500	1⅝x2⅞x1½	HC5	$1.95
F5501	117	2.5 C.T.	2.5	2000	1⅝x2⅞x1½	HC5	2.16
F5502	117	2.5 C.T.	5	7500	2⅝x3⅛x2¼	HC7	3.30
F5503	107-117	2.5 C.T.	10	2500	3⅛x2½x2⅝	US	4.20
F5504	117	2.5 C.T.	10	10,000	3½x2⅞x2½	UBT	4.14
F5505	117	5.0 C.T.	3	5000	3 x2½x2½	US	4.50
F5506	117	5.0 C.T.	3	2000	2⅜x2⅞x1¾	VC6	2.70
F5507	117	5.0 C.T.	6	2500	3⅛x2½x2½	UBT	3.15
F5508	117	5.0 C.T.	10	2500	3⅛x2½x2⅞	UBL	4.20
F5509	107-117	5.0 C.T.	14	10,000	5⅛x4¼x8½	PC	13.44
F5510	107-117	5.0 C.T.	22	10,000	5⅛x4¼x8½	PC	16.05
F5511	117	6.3 C.T.	1.2	3000	1⅝x2⅞x1⅜	HC5	1.74
F5529	117	6.3	1.2	5000	2 x3¼x1¾	HC6	2.25
F5530	6.3	6.3	1.2	5000	2 x3¼x1¾	HC6	2.40
F5512	117	6.3 C.T.	3	2000	2⅜x2⅞x1¾	VC6	2.70
F5513	107-117	6.3 C.T.	4	2500	3⅛x2½x2⅛	US	4.20
F5514	117	6.3 C.T.	6	2500	3⅛x2½x2⅞	UBT	3.60
F5515	107-117	6.3 C.T.	6	2500	3⅝x3 x3⅛	US	4.95
F5516	107-117	6.3 C.T.	10	2500	3½x2⅞x2¾	UBL	4.50
F5517	117	7.5 C.T.	2.5	2000	2⅜x2⅞x1¾	VC6	2.40
F5518	117	7.5 C.T.	4	2500	3⅛x2½x2⅞	UBT	3.45
F5519	117	7.5 C.T.	8	2500	3⅞x3⅛x2⅞	UBL	5.25
F5520	107-117	10.0 C.T.	4	2500	3½x2⅞x2⅝	US	5.55
F5521	117	10.0 C.T.	4	2500	3½x2⅞x2⅝	UBT	4.50
F5522	107-117	10.0 C.T.	5	2500	4 x3¼x3⅛	US	5.40
F5523	107-117	10.0 C.T.	8	2500	4 x3¼x3⅛	US	6.06
F5524	107-117	10.0 C.T.	12	7500	5⅛x4¼x8½	PC	16.05
F5525	107-117	11.0 C.T.	10	7500	5⅛x4¼x8½	PC	15.60
F5526	117	12.6 C.T.	3	2000	3 x2½x2⅞	UBL	3.99
F5527	117	25.2	1	1500	2 x3¼x2	HC6	2.85
F5528	117	12.6/25.27/3.5		2500	3¼x2⅝x3⅛	US	6.30

FILAMENT—Multiple Secondary, 2000 Volt Insulation

G-H No.	Primary	Fil. No. 1 Volt	Fil. No. 1 A.	Fil. No. 2 Volt	Fil. No. 2 A.	Dimensions H x W x D	Mtg. Type	Net Each
F5900	117	2.5 C.T.	6	5.0 C.T.	3	3 x2½x2½	UBL	$4.44
F5901	117	5.0 C.T.	3	5.0 C.T.	3	2¾x3⅛x2½	VC7	4.14
F5902	117	5.0 C.T.	3	6.3 C.T.	6	4⅛x3¼x3⅜	US	5.76
F5903	107-117	5.0 C.T.	6	6.3 C.T.	6	4⅛x3¼x3¾	US	6.90
F5904	117	5.0 C.T.	3	7.5 C.T.	3.25	4⅛x3¼x3¼	US	5.46
F5905	117	6.3 C.T.	3	6.3 C.T.	3	3 x3⅝x2¼	VC8	4.25

102-55A

Gramer-Halldorson Transformers



TV-HORIZONTAL DEFLECTION and H.V. FLYBACK TRANS.

G-H No.	Application	Mtg. Type	Net Each
FB400	9-10KV for RCA 21111 and 211T3	F	$5.70
FB401	10-14 KV for GE 77J1 Type Units	F1	6.00
FB402	13-14 KV for RCA 211T5 in doubler circuits	F	6.30
FB403	12-13 KV—65° to 70° Picture Tubes	F	6.60
FB404	11-13 KV for RCA 74951 in direct-drive circuits	F2	3.90
FB405*	12-15 KV for Admiral 79C30-2, 79C30-4, 79D38-1	#	4.59
FB406*	12-15 KV for Admiral 70C30-1, 79C30-3	#	4.71
FB407†	Philco 32-8533, 32-8534	#	3.36
FB408†	Philco 32-8555	#	3.57
FB409	Philco 32-8465-2, -8484-2, -8509, -8509-2	F5	5.97
FB410	Multipurpose. Matches 8-25 mh. yokes and Hi or Lo mh. width coils. Separate winding for hor. phase det./AGC. Universal mounting bracket	F5	5.97
FB411	Autoformer type equiv. to RCA 230T1	F6	6.00
FB412	Airline, Raytheon, Truetone C-210-21025-1	F7	6.30
FB413	Muntz TO-0031, TO-0031-1, TO-0031-2	F8	5.97
FB414	Emerson 738056 and 738060	F9	6.30
FB415	Emerson 738067, 738068, 738069, 738073, 738074, 738075, 738082	F9	6.30
FB416	Muntz TO-0036, TO-0036-1, TO-0036-2	F8	6.30
FB417	Crosley 157820-5-1; Hallicrafters 55D251	F10	5.34
FB418	Sentinel & Crosley AD158481-4-1; Hallicrafters 55D253	F10	5.55
FB419	Autoformer type, equivalent to RCA 235T1	F6	6.90
FB420	Admiral 79C60-3, -4, -5, -6	F11	5.40
FB421	RCA 76501	F2	3.90
FB422	RCA 75519, 75585, 76381	F2	4.05
FB423	Sylvania 241-0003	F12	4.80
FB424	Sylvania 241-0005, 241-0006	F12	4.89
FB425	Sylvania 241-0007	F12	4.95
FB426	Sylvania 241-0012	F12	5.40
FB427	Emerson 738091, 738099, 738100	F8	6.30
FB428	General Electric RTO 146-3	F1	6.30
FB429	Philco 32-8634	F6	6.30
FB430	Zenith under chassis model	F13	5.70
FB431	Air King, CBS, Silvertone 10104, 10107, 10108, 10110, 10126, 10135	F14	6.30
FB432	Philharmonic 80-263, 80-265, -2, 80-279, Airline, Apex, Ambassador, Pathe, Brunswick, Silvertone, Olympic, Starrett, Lafayette, Meck	F15	6.00
FB433	Motorola 24C701134, 710636, 792596, -D, 24K700588, 701099, 792753	F17	6.30
FB434	Motorola 27K721301, -C, 24K721517C	F16	7.95
FB435	Motorola 24K71213	F16	7.95
FB436	Motorola 24C711265, 24C71126A, 24C721290	F16	7.95
FB437	Westinghouse V9904-1, V10213-1	F9	6.30
FB438	Westinghouse V10214-1	F9	6.30
FB439	Airline, Raytheon, Coronado, Truetone 12M-18530, 12M-18689, -1, -2, 201-18562, -1	F11	6.45
FB440	Airline, Raytheon, Truetone 201-19874, 201-1999, 201-21270-1, Sentinel 22E8, Sparton PC70015, Wells Gardner 53X326, -8, -9, 53X330	F5	8.40
FB441	Dumont 20005021	F9	6.30
FB442	Philco 32-8428, -1, -2	F18	7.20
FB443	Admiral 79D41-1, -2, Sheraton, Video Products EL-006, EL-019, B	F11	6.30

*Complete coil and panel assembly ready to slip on core pieces of part to be replaced. New H.V. filament wire supplied.
†Complete coil assembly with leads and sleeving cut to length for quick mounting on corest of original part. New H.V. filament wire supplied. #Coil only.

TV-DEFLECTION YOKES

G-H No.	Application	Hor. MH	Ver. MH	Mtg. Type	Net Each
DF600	For 50° Deflection Kinescopes	8.3	50	Y1	$4.74
DF601*	70° Cosine Deflection, Ferrite Core	8.5	50	Y2	6.00
DF602*	70° Cosine Deflection, Ferrite Core	13.5	50	Y2	6.00
DF603†	70° Cosine Deflection, Ferrite Core	30.0	3.5	Y2	6.00
DF604†	70° Cosine Deflection, Ferrite Core	30.0	50	Y2	6.00
DF605	70° Cosine Deflection, Ferrite Core	21.0	50.0	Y2	6.00
DF606#	90° Cos. Hi-eff. Defl., Ferrite Core	12.0	44.0	Y2	7.44
DF607*	90° Cos. Hi-eff. Defl., Ferrite Core	18.5	44.0	Y2	7.44

*Employs new exclusive fifth-lead external control of network.
†Heavily insulated at 6000 volts for direct drive service.
#Complete with hardware for large 4¾" yokes.

HORIZONTAL WIDTH OR LINEARITY COIL

G-H No.	Winding No. 1	Winding No. 2	Mtg. Depth	Body Dia.	Mtg. Type	Net Each
HF800	3.5—31 mh. 27.5 ohms	2—8.5 mh. 23 ohms CT	2¼"	¾"	ST	$1.32

Application: **A**—Width control with separate AGC and/or phase detector winding. **B**—Width control (either winding). **C**—Linearity control (either winding)

TV POWER TRANSFORMERS

G-H No.	AC Volts	DC Ma.	Filaments, Amps. per Winding 5.0 V.	6.3 V.	12.6 V.	Mtg. Type	Net Each
P9701	225–0–225	90	2.0	5.15	.....	HS	$ 6.45
P9702	335–0–335	175	2.0	1.2	.....	USC	10.35
				7.0	.....		
P9803*	380–0–380	180	3.0	9.0	.....	HSS	11.55
P9705	360–0–360	200	3.0	1.2	.....		
				7.75	.....	HSC	14.25
P9707	375–0–375	205	2.0	5.6	.....		
			3.0		.....	HS	11.10
P9708	378–0–378	205	3.0	1.2	.....		
				9.5	.....	USC	11.25
P9730	380–0–380	225	3.0	1.2†			
				5.0†			
				7.0†	5.5	USC	13.74
P9731	380–0–380	225	3.0	1.2†			
				5.0†			
				7.0†	5.5	HSC	13.74
P9733	300–0–300	230	3.0	9.0	.....	HSC	10.95
P9709	385–0–385	230	2.0	9.0	.....		
			3.0		.....	HSC	14.94
P9711	360–0–360	250	2.0	2.7	.....		
			5.0	9.0	.....	HSC	15.00
P9713	360–0–360	250	2.0	0.6	.....		
			3.0	8.0	.....	HSC	13.50
P9719	350–0–350	270	2.0	1.6	.....		
			6.0	7.8	.....	HSC	14.40
P9721	365–0–365	295	2.0	.....	5.0	HSC	16.71
			6.0	.....			
P9737	340–0–340	335	6.0	2.5†			
				5.0†			
				5.0†	5.0	HSC	16.08
P9739	280–0–280	400	6.0	4.5†			
				8.5†	5.0	HSC	16.08

TYPES WITH TWO HIGH VOLTAGE LEVELS

P9715*	332–0–332	180	3.0	1.2	.....		
	207–0–207	70		9.0	.....	HSS	$16.20
P9735	350–0–350	180	3.0	2.0	.....		
	220–0–220	70		10.0	.....	HSC	16.20
P9717	360–0–360	185	3.0	12.0	.....		
	167–0–167	65			.....	HS	11.97
P9723	375–0–375	170	2.0	2.6	5.0	HSC	15.00
	325–0–325	150	3.0				
			2.0				
P9725	385–0–385	195	2.0	0.6	.....		
	235–0–235	105	2.0	7.65	.....		
			3.0		.....	HS	14.40
P9727	400–0–400	220	2.0	2.6	.....		
	212–0–212	90	3.0	10.0	.....	HSC	
			3.0		.....		15.00
P9728	405–0–405	240	3.0	2.6†			
	325–0–325	200	3.0	6.0†			
			3.0	6.0†	6.0	USC	24.00
P9999	840CT	300	6.0	4.0	.....	HSC	15.90
	730CT		4.0	4.0			
	600CT			3.0			
	370CT			1.2			

†Bracketed windings may be used separately for 6.3 volts or in series for 12.6 volts CT. *Has rectifier socket internally wired and mounted on shell.

TV-FOCUS COILS

G-H No.	Application	Resistance	Mtg. Type	Wt. Lbs.	Net Each
EM700	Equivalent to RCA 202D1	237 Ohms	T	2	$4.95
EM701	Equivalent to RCA 202D2	470 Ohms	T1	3¼	6.54

TV-HORIZONTAL BLOCKING-OSCILLATOR TRANSFORMERS

G-H No.	Application	Mtg. Type	Net Each
B6600	Equivalent to RCA 208T3	HC4	$1.80
B6601	Equivalent to RCA 208T1	PC2	2.25

TV-VERTICAL BLOCKING-OSCILLATOR TRANSFORMERS

B6700	Turns Ratio 1:4.2	HC4	$1.59
B6701	Equivalent to RCA 208T9—Turns Ratio 1:4.2	PC3	1.95
B6702	Similar to B6701 except Mtg. Type—Turns Ratio 1:4.2	HC3	1.50
B6703	Equivalent to RCA 208T2—Turns Ratio 1:4.2	PC2	1.98

TV-VERTICAL OUTPUT TRANSFORMERS

Z1800	Equivalent to RCA 204T2—T/R 10:1	WB	$3.75
Z1801	Equivalent to RCA 204T9—T/R 10:1	WB	3.60
Z1802	Equivalent to Motorola 25C790151—T/R10:1	HC7	3.00
Z1803	General Application—T/R 10:1	HC6	2.55
Z1804	Equivalent to RCA 222T1—T/R 11.4:1 Autoformer	HC6	2.55
Z1805	Equivalent to RCA 74950—T/R 44:1	WB	3.90
Z1806	General use. Autoformer type.	HC7	3.30
Z1900	Universal (bracket furnished)	HT6	4.20

Gramer-Halldorson Transformers

SPEAKER MATCHING

G-H No.	Impedance Primary	Impedance Secondary	Watts	Mtg. Type	Net Each
S3500	500	3.2, 6-8	5	HT4	$1.32
S3501	2000-1500-1000-500	3.2, 6-8	8	HT5	1.92
S3502	2000-1500-1000-500	3.2, 6-8	12	VT6	2.55
S3503	8000-6000-4000-2500	6-8	12	VC6	2.55
S3504	2000-1500-1000-500	3.2, 6-8	18	VT6	3.15
S3505	500	8, 4, 2.65, 2.35, 2, 1.5, .7, .5, .3, .2, .1, .05	15	VT6	3.15
S3506	1500-1000-500	4-8-15	25	VT8	3.15
S3507*	10,000-5000-2500-1250-625	4-8-15	8	VT5	2.46
S3508*	10,000-5000-2500-1250-625-312.5	4-8-15	16	VT7	3.57

*70.7 volt line-to-voice coil application. Power level adjustable in 3 db steps.

AUDIO OUTPUT—SINGLE PLATE TO VOICE COIL AND LINE

Gramer Halldorson No.	Typical Output Tubes	Primary Impedance	Secondary Impedance	Primary Ma.	Watts Mtg. Type	Net Each
Z1100	50L6, 25L6, 25B6,	1500	2-4-6	55	5 HC4	$1.74
Z1101	50L6, 35A5, 25B6	2000	3.2	50	3 HC3	.96
Z1102	50L6, 35A6, 25L6, 2A3, 5% Tap	2000	3 to 4	50	5 HC4	1.14
Z1103	25L6, 5% Tap	2000	3 to 6	50	5 HC4	1.32
Z1104	35L6, 2A3	2500	4-8-15	60	10 HC6	2.01
Z1105	50L6, 35B5, 7A5 (3% & 6% Taps)	3000	3 to 4	50	5 HC4	1.44
Z1106	71A,45,25A6,12A5	4000	4-8-15	40	10 HC6	2.10
Z1107	43-25A6, 2A5	4500	3 to 6	35	5 HC4	1.20
Z1108	45, 25A6, 6L6, 6V6	5000	4-8-15-500	55	20 US	4.80
Z1109	50, 31, 25A7G, 6V6	5000	4-8-15	50	8 HC6	2.04
Z1110	1S4, 3S4	6000	3 to 6	10	3 HC3	1.08
Z1111	50B5, 50L6, 35A5	2000 or 6000	3.2	60 or 10	5 HC4	1.44
Z1112	6AC5, 6B5, 6F6,	7000	4-8-15	40	10 HC6	2.04
Z1113	7B5, 6K6, 6F6, 42	7000	4	30	5 HC4	1.17
Z1114	2500/4000/5000/6000/7000		500	60	10 VT7	4.05
Z1115	6F6,6K6,6N6,7B5	7600	3.2	35	5 HC4	1.44
Z1116	3Q4 Hum reducing Tap	9000	3 to 6	10	4 HC4	1.50
Z1117	6N7, 3C5, 1J6	10,000	4	30	5 HC4	1.14
Z1118	12A7, 6Y7, 6V7, 1T5	15,000	4	10	5 HC4	1.20
Z1119	1N6, 1LA4, 1D8, 1A5	25,000	4	5	5 HC4	1.47

AUDIO OUTPUT—PUSH-PULL PLATES TO VOICE COIL & LINE

Z1400	P.P. Par. 6L6, 45	3800 & 3300	4-8-250-500	250	75 US	$8.40
Z1401	P.P. 6L6 (10% F.B. Winding)	4400	4-8-15-250-500	70	30 US	6.00
Z1402	P.P. 2A3, 6A3 (Fixed Bias)	5000	4-8-15	80	15 VC6	2.25
Z1403	P.P. 6L6 (F.B. Winding)	6600	4-8-15-500	150	35 US	6.90
Z1404	P.P. 6V6, 6F6, 2A5	10,000	4-8-15	30	12 VC6	1.95
Z1405	P.P. 45, 6V6, 6AC5	10,000-7,000	4-8-15-500	60	25 US	5.10
Z1406	P.P. 89, 47, 7B5, 6K6	14,000	4-8-15	30	15 VC6	2.10
Z1407	8K/10K/12K/14K		500	55	10 VT7	4.11
Z1408	P.P. 6Z7, 6K6, 1S6	20,000	4-8-15	25	15 VC6	2.25
Z1409	.....	5, 10, 20K	50-125-333-500	15	1 HT6	2.97
Z1410	P.P. 1F4, 1J5, 1T5, 6G6	25,000	4	10	5 HC4	1.50
Z1411	P.P. 1A5-1N6	50,000	3.5	10	5 HC4	1.62
Z1412	P.P. 1A5G, 1E7G, 1N7G, 6V7G	50,000	3 to 6	20	8 HC5	2.04

AUDIO OUTPUT—UNIVERSAL TYPE

G-H No.	Primary Impedance	Sec. Imped.	Pri. Ma.	Mtg. Type	List Each
Z1000	Single or P.P. Plates 4,000-14,000	0.1 to 50	35	HT4	$1.65
Z1001	Single or P.P. Plates 2,000-13,000	0.1 to 50	50	HT4	1.80
Z1002	Single or P.P. Plates 4,000-14,000	0.1 to 50	40	HT5	1.86
Z1003	Single Plate 4000/7000/10,000	3 to 8	40	HT5	1.95
Z1004	Single or P.P. Plates 4,000-20,000	0.5 to 50	50	VT5	2.10
Z1005	Single or P.P. Plates 2,500-13,000	0.1 to 50	70	VT5	2.19
Z1006	Single Plate 1,500-10,000	0.1 to 30	55	HT5	1.86
Z1007	Single or P.P. Plates 2,500-14,000	0.1 to 30	50	VT6	2.40
Z1009	Single or P.P. Plates 3,500-14,000	0.1 to 50	40	VT6	2.40
Z1010	Single or P.P. Plates 2,500-13,000	0.1 to 50	70	VT6	2.85
Z1011	Single or P.P. Plates 4,000-14,000	0.1 to 50	50	HT6	2.94
Z1012	P.P. Plates 8,000/10,000/12,000/14,000	4-8-15-500	60	US	4.77
Z1013	Single or P.P. Plates 4,000-14,000	0.1 to 50	60	VT8	3.30

WE CARRY THE COMPLETE GRAMER-HALLDORSON LINE. LITERATURE GIVING MORE COMPLETE ELECTRICAL AND PHYSICAL SPECIFICATIONS SUPPLIED UPON REQUEST.

AUDIO INTERSTAGE

SINGLE PLATE TO SINGLE GRID

G-H No.	Nom. Imped. Pri.	Nom. Imped. Second.	Turns Ratio	Pri. DC Ma.	Dimensions H x W x D	Mtg. Type	Net Each
A2500	10,000	90,000	1:3	10	2⅛x2¾x2⅜	HC6	$2.31
A2501	10,000	90,000	1:3	10	1⅜x2⅜x1½	HC4	1.59
A2502	10,000	90,000	1:3	10	1⅝x2⅞x1½	HC5	2.10
A2503	10,000	90,000	1:3	10	1⅝x2⅞x1½	HC5	1.95
A2504	10,000	40,000	1:2	10	1⅝x2⅞x1½	HC5	1.95

SINGLE PLATE TO PUSH-PULL GRIDS

A2600	10,000	160,000	1:4	10	3 x2⅝x2⅜	US	$4.77
A2601	10,000	160,000	1:4	10	2 x3¼x1¾	HC6	2.46
A2602	10,000	122,500	1:3.5	10	1⅝x2⅞x1½	HC5	2.19
A2603	10,000	90,000	1:3	10	1⅝x2⅞x1½	HC5	1.80
A2604	10,000	90,000	1:3	10	2 x3¼x2	HC6	2.25

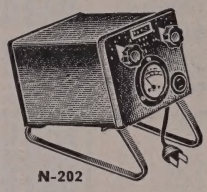
PUSH-PULL PLATES TO PUSH-PULL GRIDS

A2700	1:1*/1:1.5/1:2/1:3*/1:6		10	2 x3¼x2	HC6	3.00
A2701	20,000	45,000	1:3	10	2 x3¼x2⅜	HC6	4.14

PUSH-PULL PLATES TO PUSH-PULL GRIDS SPLIT SECONDARIES

A2710	10,000	90,000	1:3	10	2⅜x2⅞x1¾	HC6	3.15
A2711	10,000	90,000	1:3	10	2¼x3¾x2⅝	HC7	4.14

ADJUSTABLE ISOLATION TRANSFORMERS



N-202

N-303

VARIVOLT MASTER MODEL N-202

The Varivolt Master is the ideal transformer for the radio or television service bench. It offers a wide range of voltages adjustable in 1½-volt steps to assure the exact voltage needed for test purposes. The 500-watt capacity makes it usable for testing both radio and television receivers. Among the many uses are: 1. Radio and television receiver testing at over or under voltage, high for locating weak points in the circuit and low for testing minimum operation. 2. To speed up or retard heating of small soldering irons. 3. Excellent control of primary on high voltage breakdown transformers. 4. Positive primary control for calibrating test meters. 5. For sales demonstrations of small electrical equipment 6. Isolates "hash" and live ground from AC-DC equipment. 7. For school and industrial laboratories. 8. Adjusting line voltage to photo lamps for uniform exposures. 9. To compensate for low or high line voltage so that equipment can be operated or tested at rated voltage. **Variable Output:** On 117-volt line voltage, range is from 95 to 145 volts, variable in 1½-volt steps. On 90-volt line voltage, range is from 75 to 115 volts. Forty-two fine adjustment steps. Accurate panel meter shows adjusted output voltage. Entire unit mounted on steel runners to give it easy movement about the service bench. Panel tilted for ease of operation. Operates on 50-60 cycle AC.

Gramer-Halldorson N-202—Net Each..... **$35.70**

VARIVOLT JUNIOR MODEL N-303

The Varivolt Junior is an adjustable isolation transformer similar to the Varivolt Master, except that the capacity is 140 watts. This capacity is sufficient for radio servicing along with some TV servicing. It also will handle small soldering irons, small electrical equipment for sales demonstrations, etc. The voltage ranges are from 95 to 145 volts on 117-volt line, or 75 to 115 volts on 90-volt line input. Fine adjustment of 42 1½-volt steps. Panel meter indicates output voltage. Operates on 50-60 cycles AC.

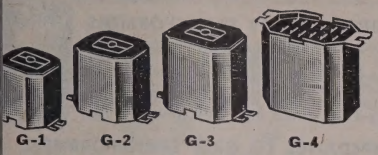
Gramer-Halldorson N-303—Net Each..... **$21.45**

TRANSISTOR TINYFORMERS

Tinyformer transformers are designed for highest efficiency in transistor circuits. Tiny size, extremely low weight (200 per pound!) are made possible by fine wires, precise nylon coil forms and high-nickel alloy high-Q cores. All leads are flexible and color coded. **Size:** 11/16" x 5/8" x 5/8".

G-H No.	Type	Matching Impedance Pri.	Matching Impedance Sec.	D.C. Resistance Pri.	D.C. Resistance Sec.	Wt. Lbs.	Net Each
M1	Interstage	20,000	1,000	1,150	175	.005	$6.60
M2	Interstage	20,000	1,000	930	95	.005	6.30
M4	Output	600	50	66	7.7	.005	5.70
M5	Output	400	50	70	9.3	.005	5.70
M6	Input	200,000	1,000	2,600	135	.005	7.50
M7	Output	1,000	50/60	160	9	.005	5.85
M10	Choke	12 Hy. O D.C.		830		.005	5.10

United Transformers



G SERIES CASE SIZE

Case	Height	Width	Depth	Wt.
G-1	1⅞	2 13/16	1¾	1
G-2	2 5/16	3⅜	1 15/16	1½
G-3	2½	3¾	2 5/16	2
G-4	2 15/16	4⅛	2 5/16	3
G-5	3¾	3⅛	4½	4½
G-7	4⅝	4⅝	5½	8
G-8	4⅝	5⅜	5⅜	12
G-9	5⅞	5⅜	6¾	21
G-10	5⅞	6⅛	6⅝	24
G-11	5⅞	6½	7⅝	31
G-12	10¼	7⅜	9¼	52

LINEAR STANDARD AUDIO TRANSFORMERS

UTC LS audio units feature uniform frequency response—at low frequencies it is effected through the use of Hiperm-Alloy, a stable nickel iron of very high initial permeability. Uniform high frequency response is the result of multiple section interleaved windings arranged in a semi-toroidal coil structure. These units are the only audio units with a guaranteed uniform response —± 1 db from 20 to 20,000 cps.

PECIAL SERIES AUDIO TRANSFORMERS

TC Special Series transformers are specifically signed for amateur and popular-priced PA serv-e. These units are finished in a rich, commercial type medium ay enamel. A recessed terminal strip is provided, permitting above assis or breadboard wiring in addition to standard chassis type.

CLASS A INPUT TRANSFORMERS

Type	Ratio	Application	Case	Net
S-1	3½:1	Plate to grid	G-2	$4.00
S-2	2:1, 4:1	Plate to 2 grids	G-2	5.00
S-3	2:1	Plate to 1 or 2 grids	G-1	3.70
S-4	1:1	Plate to 2 grids	G-3	5.70
S-5	16:1	Single or double button mike or line to grid	G-2	4.00
S-6	16:1	Same as above	G-1	3.70
S-7	3:1, 16:1	Plate and carbon mike to 1 or 2 grids	G-2	5.50

UNIVERSAL DRIVER TRANSFORMERS

Type	Application	Case	Net
S-8	Single driver plate to pp grids	G-3	$5.50
S-9	PP pl. to grids of class B tubes	G-4	6.50
S-10	PP pl. to 45's. 2A3's or 6L6's	G-3	5.50

MATCHING TRANSFORMERS

Type	Application	Primary	Sec.	Case	Net
S-11	Tube to line	15,000 ohms	200/500	G-2	$4.50
S-12	Line to spkr., 15w	-500, 2000-	2, 4, 8,	G-2	5.00
S-13	Line to spkr., 30w	- 4000 -	15	G-4	7.00

UNIVERSAL OUTPUT TRANSFORMERS

Secondary Impedances: 500, 15, 8, 2 ohms

Type	Primary Impedance	Watts	Case	Net
S-14	2500, 4000, 7000, 10,000	10	G-2	$6.00
S-15	P.P tubes: 4000, 5000, 10,000	12	G-2	5.50
S-16	P.P. 3000, 6000, 9000–10,000	30	G-4	7.00
S-17	P.P. 3800, 4500–5000	55	G-5	9.00

UNIVERSAL MODULATION TRANSFORMERS

ec. carries class C current. Any mod. tubes to any R.F. load.

Type	Audio Power	Case	Net
S-18	12 Watts	G-3	$6.00
S-19	30 Watts	G-4	8.00
S-20	55 Watts	G-5	13.00
S-21	110 Watts	G-7	18.00
S-22	250 Watts	G-9	28.00

FILTER, SWINGING AND AUDIO CHOKES

Type	Henrys	MADC	Ohms	Insul.	Case	Net
S-23*	500	5	6000	1500 V.	G-2	$3.80
S-24‡	500	3	4000	1500 V.	G-2	4.50
S-25	30	30	900	1500 V.	G-2	3.50
S-26	15	60	230	1500 V.	G-2	3.50
S-27	30	75	350	1500 V.	G-4	4.50
S-28	20	100	350	1500 V.	G-4	4.50
S-29	10	175	95	1500 V.	G-4	4.50
S-30†	5/25	175	95	1500 V.	G-4	4.50
S-31	20	225	120	2700 V.	G-5	6.00
S-32†	5/25	225	120	2700 V.	G-5	6.00
S-33	20	300	90	4000 V.	G-7	8.50
S-34†	5/25	300	90	4000 V.	G-7	8.50
S-35	20	400	85	5000 V.	G-8	12.00
S-36†	5/25	400	85	5000 V.	G-8	12.00
S-37	20	550	60	6000 V.	G-8	14.00
S-38†	5/25	550	60	6000 V.	G-8	14.00

Audio. ‡P.P. Audio C. T. †Swinging.

PLATE AND BIAS TRANSFORMERS

Primary 115 V. 50/60 Cycles

Type No.	High Voltage	D.C. Voltages*	D.C. Ma.	Case	Net Each
S-44	575-525-0-525-575	470/430	500	G-9	$22.00
S-45	900-750-0-750-900	750/620	200	G-8	17.00
S-46	1000-750-0-750-1000	825/600	300	G-9	21.00
S-47	1500-1250-1000-0-1000-1250-1500	1275/1050/825	300	G-10	27.00
S-48	1500-1250-1000-0-1000-1250-1500	1300/1075/850	500	G-11	34.00
S-49	2100-1800-1500-0-1500-1800-2100	1815/1540/1275	300	G-11	33.00
S-50	3000-2500-0-2500-3000	2625/2175	300	G-12	50.00
S-51	Any bias voltage from 15 to 100 ± 6%		200	G-5	11.00
S-52	Any bias voltage from 75 to 400 ± 6%		200	G-7	14.00

*Based on two section filter for 200 Ma. units. Single section filter or 500 Ma. units, both choke input.

LINEAR STANDARD TRANSFORMERS

LS SERIES CASE SIZES

Case	Length	Width	Height	Wt.
LS-1	3⅛"	2⅝"	3¼"	3
LS-2	4 7/16"	3½"	4 3/16"	7½
LS-3	5 13/16"	5"	4 11/16"	15

LOW IMPEDANCE TO GRID TRANSFORMERS

Type No.	Application	Pri. Imped.	Sec. Imped.	Case No.	Net Each
LS-10	Low imped. mike, pickup, or mult. line to grid	50, 125/150, 200, 250, 333, 500/600 ohms	60,000 ohms in two sections	LS-1	$15.00
LS-10X	As above	As above	50,000 ohms	LS-1	19.00
LS-12	Low imped. mike, pickup, or mult. L. to P.P. G.	50, 125/150, 200, 250, 333, 500/600 ohms	120,000 ohms overall, in two sections	LS-1	17.00
LS-12X	As above	As above	80,000 ohms overall, in two sections	LS-1	20.00
LS-14	Low imped. mike, pickup, or para'l mixer to grid	2.5, 5.5, 10, 15, 22, 30, 38, 60 ohms	60,000 ohms in two sections	LS-1	18.00
LS-14X	As above	As above	50,000 ohms	LS-1	20.00
LS-15X	Three isolated lines or pads to one or two grids	30, 50, 200, 250 ohms each primary	60,000 ohms overall, in two sections	LS-1	20.00
LS-18	High level mult. L. to P.P. G.	50, 125/150, 200, 250, 333, 500/600 ohms	50,000 ohms overall, in two sections	LS-2	16.00
LS-26	Bridging line to single or P.P. grid	5,000 ohms	60,000 ohms in two sections	LS-1	18.00

+LS-26 ± 1 db from 15-20,000 cps., balance ± 1 db from 20-20,000.

INTERSTAGE AUDIO TRANSFORMERS

All in **LS-1** cases except **LS-22.** Guaranteed uniform response of ± 1 db from 20 to 20,000 cps. Negligible wave form distortion.

Primary Impedance, 15,000 ohms. For Single Plate.

Type	Use	Secondary & Ratio	Max. Level	Net Each
LS-19	To PP grids	95,000 ohms; 1¼:1	+17 DB	$16.00
LS-20	To grid	60,000 ohms; 2:1	+14 DB	17.00
LS-21	To PP grids	135,000 ohms; 3:1	+14 DB	15.00
LS-40	To PP grids	135,000 ohms; 3:1	+20 DB	18.00

Primary Impedance 30,000 ohms. P. to P. for Push-Pull Plates

LS-22*	To PP grids	80,000 ohms 1.6:1	+26 DB	$22.00
LS-25	To PP grids	50,000 ohms 1.3:1	+17 DB	19.00

*LS-2 case: 4 7/16x3½x4 3/16". Shpg. wt. 9 lbs.

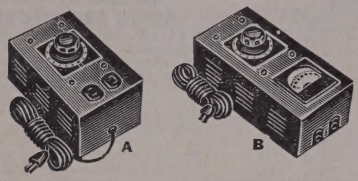
MIXING TRANSFORMERS

± 1 DB 20-20,000 cps.

Type No.	Application	Pri. Imped.	Sec. Imped.	Case No.	Net Each
LS-30	Mixing, low imped. mike, pickup, or mult. line to mult. line	50, 125/150, 200, 250, 333, 500/600 ohms	50, 125/150, 200, 250, 333, 500/600 ohms	LS-1	$16.00
LS-30X	As above	As above	As above	LS-1	19.00
LS-31	Three isolated lines or pads to mult. line	30, 50, 200, 250 ohms each prim.	50, 125/150, 200, 250, 333, 500/600 ohms	LS-1	18.00
LS-31X	As above	As above	As above	LS-1	22.00
LS-32	Mixing, low imped. mike, pickup, or para'l mixer to mult. line	2.5, 5.5, 10, 15, 22, 30, 38, 60 ohms	50, 125/150, 200, 250, 333, 500/600 ohms	LS-1	22.00

United Transformers

VARITRAN UNITS



A simple autotransformer with whose turns are arranged on one layer with insulation removed so that every exposed turn may be used as a tap of the winding. Special non-fusing contact can be moved to any position on the winding, permitting the exact voltage desired to be obtained. Regulation and efficiency are excellent and no distortion of wave form occurs. Output voltage is independent of load. Current and wattage rating is based at 115 volts. As the voltage is reduced, the current is reduced accordingly. Maximum current can be taken at any point from 0 to 20 volts and from 95 to 130 volts. Mounting facilities are at both top and bottom of each unit to assure ease of mounting on panel, chassis or for laboratory bench service.

Type	Input	Output	Watts	Amps.	Fig.	Dimensions	Net
V-1	115 v.	0-130 v.	570	5	A	4⅞x8 x3⅝	20.00
V-1-M	115 v.	0-130 v.	570	5	B	4⅞x9⅞x3⅝	35.00

OUNCER AND PLUG-IN AUDIO UNITS

Ouncer Case

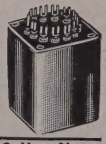
UTC Ouncer components are compact quality transformers. They are fully impregnated and sealed in a drawn aluminum housing ⅞" diameter. Weight 1 ounce. "P" series units are identical to the Ouncer units but are sealed in bakelite housings with plug in base to fit standard octal socket. Weight 2 ounces.

Plug-in Case

Type No.	Net Each	Primary	Secondary	Type No.	Net Each
O-1	$7.00	50, 200-250, 500-600	50,000	P-1	$8.50
O-2	7.00	50,200-250, 500-600	50,000 P.P.	P-2	8.50
O-3	6.50	7.5-30	50,000	P-3	8.00
O-4	6.00	15,000	60,000	P-4	7.50
O-5	6.00	15,000	60,000	P-5	7.50
O-6	6.50	15,000	95,000 P.P.	P-6	8.00
O-7	6.50	15,000	95,000 P.P.	P-7	8.00
O-8	7.00	15,000	50, 200/250 500/600	P-8	8.50
O-9	7.00	15,000	50, 200/250, 500/600	P-9	8.50
O-10	7.50	30,000*	50, 200/250, 500/600	P-10	9.00
O-11	7.00	50,000	50, 200/250, 500/600	P-11	8.50
O-12	7.50	50, 200-250	Same as O-9	P-12	9.00
O-13	5.50	(Reactor: 50 hys—2 MA DC, 6000 ohms)		P-13	7.00
O-14	7.00	200	½ megohm	P-14	8.50
O-15	7.00	15,000	1 megohm	P-15	8.50
O-16	9.00	250 C.T.	50,000	.....	.....

*Plate to plate.

ULTRA COMPACT HIGH-FIDELITY AUDIOS



Maximum operating level on all units is + 10 db. Case size: 1½" long x 1½" wide x 2" high. Weight ½ lb. Solder lug terminals.

Type	Pri. Imp.	Sec. Imp.	cps ±2 db	Net
A-10	50, 125, 200-250, 333, 500-600	50,000	30-20,000	11.00
A-11*	50, 200, 500	50,000 P.P.	50-10,000	10.00
A-12	50, 125, 200-250, 333, 500-600	80,000, 2 sect.	30-20,000	11.00
A-14	30	50,000, 2 sect.	30-20,000	10.00
A-16	15,000	60,000 P.P.	30-20,000	9.00
A-17	15,000	60,000 2:1	40-20,000	10.00
A-18	15,000	80,000 P.P	30-20,000	11.00
A-19	15,000	80,000 P.P.	50-12,000	11.00
A-20	50, 125, 200-250, 333, 500-600	Same as pri.	30-20,000	11.00
A-21	50, 200-250, 500-600	Same as pri.	50-10,000	11.00
A-24	15,000	50, 125, 200-250, 500-600	30-20,000	11.00
A-25	15,000	Same as above	50-12,000	10.00
A-26	30,000 P.P.	Same as above	30-20,000	11.00
A-27	100,000	Same as above	30-20,000†	11.00
A-30	Audio choke, 300 henrys at 2 MA 6000 ohms D.C. 75 henrys at 4 MA 1500 ohms D.C., inductance with no D.C. 450 henrys.....			8.00
A-32	Filter choke, 60 henrys at 15 MA 2000 ohms D.C., 15 henrys at 30 MA 500 ohms D.C.....			5.50

*Extra shielding for high-gain use. †Measured with non-inductive source.

HIPERM ALLOY TRANSFORMERS

H-1

The UTC Hiperm alloy audio and power transformers are specifically designed for portable and compact service. Though light in weight neither dependability or fidelity has been sacrificed. Type H-1 case 2⅜" long x 1 15/16" wide x 3⅛" high, weight 2 lbs. Type H-2 case 3 5/16" long x 2 13/16" wide x 3½" high, weight 5 lbs.

LOW IMPEDANCE TO GRID TRANSFORMERS

Units with **"X"** have tri-alloy internal shield to effect very low hum pickup. Primary Impedances: 50, 125, 200, 250, 333, 500/600 ohms Max. level +15 db. Response ± 1 db 30-20000.

Type	Application	Secondary	Net
HA-100	Mike, pickup or line	60,000 ohms*	$13.00
HA-100X	Same, with tri-alloy shield	60,000 ohms*	15.00
HA-101	Mike, pickup or L to PPG	120,000 ohms*	14.50
HA-101X	Same, with tri-alloy shield	80,000 ohms*	15.50
HA-103A	Low imped. mike pickup or para'l mixer to grid	60,000 ohms*	13.00
HA-108	Mixing, mike, pickup or line	50-500/600	14.00
HA-108X	Same, with tri-alloy shield	50-500/600	15.00
HA-130X	3 isolated lines or pads to 1 or 2 grids with shield	60,000 ohms*	15.00

*Secondary in 2 sections. All in H-1 case.

INTERSTAGE AUDIO TRANSFORMERS

Uniform frequency response by use of **Hiperm Alloy** cores. Primary impedances of **HA-104, 105 & 106** is 15,000 ohms. Coil structures are hum-balanced for minimum hum pickup. Max. level for all except **HA-107** is +17 db; for **107,** +25 db.

Type	Application	Secondary & Ratio	Net
HA-104	Plate to pp grids	95,000 ohms, 1.25:1	$13.00
HA-105	Plate to grid	60,000 ohms, 2:1	13.00
HA-106	Plate to pp grids	135,000 ohms, 3:1	13.00
HA-107*	PP Plates to pp grids	80,000 ohms 1.6:1	20.00
HA-137*	PP plates to pp grids	68,000 ohms, 1.5:1	14.00

Al in H-1 case, except HA-107 in H-2 case. *30,000 ohm primary.

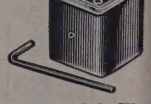
PLATE AND CRYSTAL TO LINE TRANSFORMERS

Secondary Impedances: 50, 125, 200, 250, 3 3, 500/600 ohms. Response: ±1 db 30 to 20,000 cps. Mount either "up" or "down."

Type No.	Application	Primary Ohms	Max. Level	Net Each
HA-111	Crystal Mike or Pickup to Mult. L.	100,000	+ 4 DB	$13.00
HA-113	Plate to mult. L.	15,000	+18 DB	12.00
HA-133	Plate to mult. L (D.C. in Pri.)	15,000	+18 DB	17.00
HA-114	PP plates to mult. line	30,000	+20 DB	14.00
HA-134*	PP 89's or 2A3's to L.	5,000/9,400	+32 DB	15.00
HA-135*†	PP 2A3's to VC	5,000	+36 DB	15.00

*H-2 case balance H-1 case
†Secondary 30, 20, 15, 10, 7.5, 5, 2.5, 1.2.

VARIABLE INDUCTORS



UTC Type VIC variable inductors offer a revolutionary approach to the problem of tuned audio circuits. For use in oscillators, tuned amplifiers, equalizers and filters. By adjusting a set screw in the side of the case, an inductance value of +85%, −45% from mean value is obtainable. Setting is positive. Effective Q for a wide frequency range and variation of inductance with applied AC voltage is thus available. DC Milliamperes shown in table below is maximum recommended . . . will effect some reduction in inductance and Q. The VIC inductor is housed in a rugged die cast case 1 11/32" long, 1¼" wide and 1 7/16" high with mounting centers on terminal board side 13/16" x 29/32". Weight is 5½ oz.

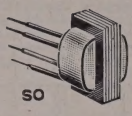
UTC Type	Mean Henries	Maximum Recommended DC Ma.	Net Each
VIC-1	.0085	75	$ 6.00
VIC-2	.013	60	6.00
VIC-3	.021	50	6.00
VIC-4	.034	40	6.00
VIC-5	.053	35	6.00
VIC-6	.084	30	6.00
VIC-7	.13	25	6.00
VIC-8	.21	21	6.50
VIC-9	.34	18	6.50
VIC-10	.54	15	6.50
VIC-11	.85	12	6.50
VIC-12	1.3	10	6.50
VIC-13	2.2	8	6.50
VIC-14	3.4	7	6.50
VIC-15	5.4	6	7.00
VIC-16	8.5	5	7.00
VIC-17	13.	4	7.00
VIC-18	21.	3.5	7.50
VIC-19	33.	3	7.50
VIC-20	52.	2	7.50
VIC-21	83.	1.5	8.00
VIC-22	130.	1	11.00

151-54A

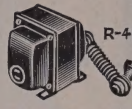
Special Transformers by UTC

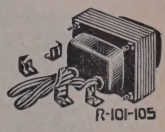
RCOF

SM


SO

SSO


R-41-46


R-101-105

HERMETICALLY SEALED COMPONENTS

MINIATURE AUDIO UNITS—RCOF CASE

UTC Type	Application; Primary Impedance, Ohms	Net Each
H-1	Mike, pickup. line to grid. **50,200 CT,500 CT**	$ 9.00
H-2	Mike to grid. **82**	9.50
H-3	Single plate to single grid. **15,000**	7.00
H-4	Single plate-single grid, DC in primary. **15,000**	7.00
H-5	Single plate to PP grids. **15,000**	8.50
H-6	Single plate to PP grids, DC in primary. **15,000**	9.50
H-7	Single or PP plates to line. **20,000 CT**	8.50
H-8	Mixing and matching. **150/600**	8.50
H-9	82/41:1 input to grid. **150/600**	8.50
H-10	10:1 single plate to single grid. **10,000**	7.50
H-11	Reactor—300 henries, 0-DC, 50 henries 3 ma. DC	6.50

COMPACT AUDIO UNITS—RC-50 CASE

H-19	Line to grid. Bal. Ctr. tap primary **250 & 500CT**	13.00
H-20	Single plate to 2 grids. PP plates. **15,000 split**	12.00
H-21	Single plate to PP grids, DC in primary. **15,000**	14.00
H-22	Single plate to multiple line. **15,000**	12.50
H-23	PP plates to multiple line. **30,000 split**	12.00
H-24	Reactor. 450 hys., 0-DC, 250 @ 5 ma., 65 @ 10 ma.	9.00

SUBMINIATURE AUDIO UNITS—SM CASE

H-30	Input to grid. **50**	8.00
H-31	Single plate to single grid, 3:1. **10,000**	8.00
H-32	Single plate to line. **10,000**	8.00
H-33	Single plate to low impedance. **30,000**	8.00
H-34	Single plate to low impedance. **100,000**	8.00
H-35	Reactor—100 hys., 0-DC, 50 hys. 1 ma. DC	6.50

CASE DIMENSIONS

Case	Length	Width	Height	M'ting	Screws	Cutout	Wt.
RCOF	1 25/64	61/64	1 13/32	1⅛	4–40	⅞ d.	1.5 oz.
RC-50	1⅝	1⅝	2 5/16	1 5/16	6–32	1½ d.	8 oz.
SM	11/16	½	29/32	.....	4–40	.....	.8 oz.

COMMERCIAL GRADE COMPONENTS

Incorporate conservative design and rugged construction to dependability under continuous service. Finished in light grey enamel and intended for chassis mounting.

INPUT, INTERSTAGE, MIXING AND LOW LEVEL OUTPUT TRANSFORMERS

UTC Type	Application—Primary Impedance, Ohms	Case RC-	Net Each
CG-131	1 plate to 1 grid. **15,000**	50	$ 8.50
CG-132	1 plate to 2 grids. **15,000**	62	8.50
CG-133	2 plates to 2 grids. **30,000 P to P**	75	8.50
CG-134	Line to 1 grid, humbucking. **50,200,500**	50	8.50
CG-135	Line to 2 grids, humbucking. **50,200,500**	50	9.00
CG-235	Line to 1 or 2 grids, humbkg. **50,200,500**	75	11.00
CG-136	1 plate and lo-Z mike or line to 1 or 2 grids. Humbucking. **15,000, 50, 200**	62	11.00
CG-233	PP 6C5, 12AU7, similar triodes to AB 45's, 2A3's, 6L6's etc. **30,000 P to P**	87	8.00
CG-333	PP 6C5, 12AU7, similar triodes to fixed bias 6L6's. **30,000 P to P**	87	7.00
CG-433	PP 45, 2A3, similar tubes to fixed bias 2 or 4 6L6's. **5,000 P to P**	100	8.00
CG-137	Mixing. **50, 200, 500**	50	7.00
CG-140	Triode plate to line. **15,000**	50	7.00
CG-141	PP triode plates to line. **30,000 P to P**	50	8.50

OUTPUT TRANSFORMERS

Secondary Impedance: 500, 200, 16, 8, 5, 3, 1.5 ohms.

UTC Type	Impedance P.P. Ohms, Overall	Typical Tubes	Max. Watts	Case RC-	Net Each
CG-15	8,000	45, 6F6 Triode	20	100	$9.00
CG-16	3,000/5,000	2A3, 6A3, 6B4	20	100	9.00
CG-19	6,000/10,000	6N7, 6F6, 6V6	20	100	9.00
CG-710	14,000/20,000	6K6, 7B5	20	100	9.00
CG-2L6	9,000	6L6's, AB1	30	125	12.00
CG-4L6	3,800/4,500	2-6L6's, AB2	55	150	20.00

CG VARIMATCH UNITS FOR P.A.

Universal units designed to match **any tubes** within the rated output power, to line or voice coil. Output Impedance 500, 200, 50, 16, 8, 5, 3, 1.5 ohms. Primary Impedance 3000, 5000, 8000, 10,000, 14,000 ohms.

UTC Type	Audio Watts	Typical Tubes	Case RC-	Net Each
CVP-1	12	45, 2A3, 6F6, 25L6, 6V6, 6B4	100	$ 9.50
CVP-2	30	45, 2A3, 6L6, 6V6	125	11.00
CVP-3	60	50's, 300A's, 6L6's, 801, 807	150	17.00
CVP-4	125	800's, 801's, 4-6L6's, 4-1614's	152	21.00
CVP-5	300	211, 242A's. 203A's, 4-845's	175	36.00

REPLACEMENT TYPE COMPONENTS

All units vacuum sealed. Shells and brackets finished in high lustre black enamel. A minimum number of transformers has been developed to cover any requirement in the replacement field. **The units shown on this page do not constitute the complete line. For additional listings and information write for complete catalog.**

DOUBLE SHELL POWER TRANSFORMERS

UTC Type	High V.	DC Ma.	Amplifier* Filament	Overall Height	Wt., Lbs.	Net Each
R-101	275-0-275	50	6.3V CT-2.7A	2¾	2½	$4.50
R-102	350-0-350	70	6.3V CT-3A	3⅜	3½	5.20
R-103	350-0-350	90	6.3V CT-3.5A	3⅜	4½	5.70
R-104	350-0-350	120	6.3V CT-5A	3⅜	5½	6.30
R-105	385-0-385	160	6.3V CT-5A	3⅞	7	7.80

*Rectifier filaments 5 volts, 3 amps except R-101, 2 amps.

STEP-DOWN AUTO-TRANSFORMERS

With 6-ft. cord and female receptacle 220-240 to 110 V, 50/60 cps.

UTC Type	Application	L.	W.	H.	Wt. Lbs.	Net Each
R-41	85 watt capacity	2⅜	2⅜	3⅛	4	$5.70
R-42	125 watt capacity	3	3	3½	5	6.30
R-43	175 watt capacity	3¼	3¼	3⅞	5½	7.00
R-44	250 watt capacity	3⅞	3¼	3⅞	6½	8.50
R-45	500 watt capacity	4⅛	3⅞	4⅝	12	12.50
R-46	1200 watt capacity	6⅜	3⅞	4⅝	18	25.00
R-64	2500 watts, no cord	10½	4¾	6¾	30	42.00

SUB-OUNCER UNITS

UTC Sub-Ouncer units weigh only ½ ounce, yet these miniature units have performance and dependability characteritities far superior to any other comparable items. Freq. response ± 3 db from 200 to 5,000 cps. Dimensions 9/16" x ⅝" x ⅞".

Type	Application	Pri. Imp.	Ma. D.C. in Pri.	Sec. Imp.	Net Each
*SO-1	Input	200 50	0	250,000 62,500	$4.00
SO-2	Interstage/3:1	10,000	0	90,000	3.60
*SO-3	Plate to Line	10,000 25,000	3 mil. 1.5 mil.	200 500	3.60
SO-4	Output	30,000	1.0 mil.	50	3.60
SO-6	Output	100k	.5	60	4.00
SO-5	Reactor 50 HY at 1 mil. D.C. 3000 ohms D.C.				3.00

*Impedance ratio is fixed, 1250:1 for SO-1, 1:50 for SO-3. Any impedance between the values shown may be employed.

SUB-SUB OUNCER UNITS

FOR HEARING AIDS AND ULTRA-MINIATURE EQUIPMENT

UTC Sub-Subouncer units have exceptionally high efficiency and frequency range in their ultra-miniature size. This has been effected through the use of specially selected Hiperm-Alloy core material and special winding methods. Dimensions: 7/16" x ¾" x ⅝". Weight, .02 lb.

UTC Type	Application	Level VU	Primary, Ohms. Imp. x DC Ma.	Secondary Impedance	Net Each
*SS0-1	Input	+ 4	200, 50 x 0	250M; 62.5M	$4.20
SS0-2	Interstage, 3:1	+ 4	10,000 x 0.25	90,000	4.50
*SS0-3	Plate-Line	+20	10Mx3; 25Mx1.5	200; 500	3.70
SS0-4	Output	+20	30,000x1.0	50	3.70
SS0-5	Reactor 50 hy. at 1 ma. DC. 4400 ohms, DC.				3.00
SS0-6	Output	+20	100,000 x .5	60	3.70
SS0-7	Transistor Interstage,	+10	20,000 x .5 30,000 x .5	800 1200	3.00

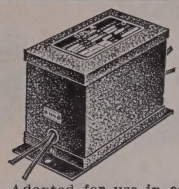
*Impedance ratio is fixed, 1250:1 for SS0-1; 1:50 for SS0-3. Any impedance between the values shown may be employed.

DIMENSIONS, COMMERCIAL GRADE CASE "RC"

Case No.	Base Dim. (Sq.)	Mounting Dim. (Sq.)	Ht., + ⅛, − 1/16	Cutout Dia.	Unit Wt. (Lbs.)
RC-50	1⅝	1 5/16	2¼	1½	½
RC-62	1 13/16	1½	2½	1½	1
RC-75	2⅜	1 13/16	2⅞	1⅞	1½
RC-87	2 9/16	2 3/32	3¼	2	2½
RC-100	3	2⅜	3¾	2⅝	3½
RC-112	3 7/16	2 11/16	4⅛	2⅞	5
RC-125	3¾	3	4½	3	6½
RC-150	4½	3 5/16	5½	3¾	11
RC-152	5⅛	4⅛	5½	4	15½
RC-175	5¾	4⅞	7⅛	4	22

151X-54A

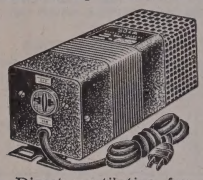
Sola Constant Voltage Transformers



Type 1

Type 1—Adapted for use in commercial equipment and available for standard or special units up to 15VA, 60 cps. Compound filled, provides enclosure for both transformer and capacitor elements.

Type 2

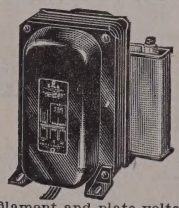


Type 2—Direct ventilation for exposed core laminations and enclosure of coils in end-bell housings. Primary cord set. For units up to 150VA, 60 cycles.

Sola Constant Voltage Transformers maintain constant output voltage within ±1% with as much as ±15% line voltage fluctuation. The electrical circuit has 3 windings: an intermediate, a resonant and a compensating winding; as well as primary winding. Magnetic circuit is a closed core with shunts. Input volt-amperes, watts and power factor are mainly determined by load and are essentially independent of input voltage. Input power factor is 95-100% at full rated load, approx. 75% at half load. Eff., full load, 80-87%.

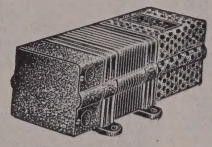
Sola No.	Type Structure	Volt Amperes	Voltage Input	Voltage Output	Net Each
30488	1	15	95-125	6.0	$16.00
30492	1	15	95-125	6.3	16.00
30498	1	15	95-125	115	16.00
30804	2	30	95-125	115	18.00
30805	2	60	95-125	115	25.00
30806	2	120	95-125	115	33.00
30888	2	150	95-125	115	40.00
30881	21	25	95-125	6.3	17.00
30882	21	50	95-125	6.3	24.00
30885	22	60	95-125	115.0	25.00
30886	22	120	95-125	115.0	33.00
30807	3	250	95-125	115	52.00
30M807	3	250	190-250	115	52.00
30808	3	500	95-125	115	81.00
30M808	3	500	190-250	115	81.00
30809	4	1000	95-125	115	135.00
30M809	4	1000	190-250	115	135.00
30811	4	2000	95-125	115	245.00
30M811	4	2000	190-250	115	245.00
30968	4	2000	190-250	230	245.00
301706	41	3000	95/190-125/250	115	345.00
301707	5	3000	190/380-250/500	230	345.00
301704	5	4000	95/190-125/250	115	435.00
301702	5	5000	95/190-125/250	115	515.00
301703	5	5000	95/190-125/250	230	515.00
301700	6	10000	190/380-250/500	115	990.00
301701	6	10000	190/380-250/500	230	990.00

SOLA CONSTANT VOLTAGE TRANSFORMER TYPE CVE

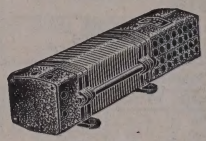


Delivers filament and plate voltages regulated within ±3% or less, with line voltage variations of 100-130 volts. This modification provides a compact regulated source of plate and filament windings on the same core. It enables the enjoyment of a constant voltage power supply at a moderate cost.

Sola No.	Output Cap. in V.A.	Shpg. Wt., Lbs.	Net Each
7104-5	42	5½	$10.15
7106	75	8¾	12.60
7107	210	19	19.60

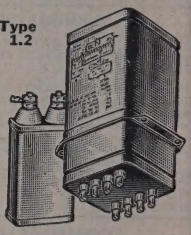


Type 3



Type 4

Type 1.2



Type 3—160 to 600VA, 60 cps. Direct ventilation, capacitor enclosed. Insulating barrier between transformer and capacitor.

Type 4—Normally employed on units from 650 to 2300VA, 60 cps. Direct ventilation to core laminations. Primary and secondary terminals separated in terminal box.

Type 6 (Not Ill.)—Triplex structure for units between 6000 and 10,000 VA. Triple core and coil assemblies interconnected. Input and output to outlet box.

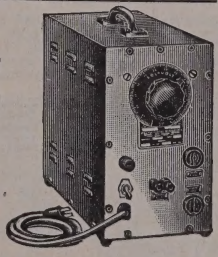
Type 1.2—Hermetically sealed, core and coil of transformer only. Capacitors furnished separately, included in price. Available for units to 15VA, 60 cps.

Type 21 (Not Ill.)—Similar to Type 2, except provided with output terminals.

Type 22 (Not Ill.)—As above, except equipped with both Pri. and Sec. terminals.

Type 41 (Not Ill.)—For units between 2300 and 3500VA. Capacitors enclosed in separate, louvred compartment. Pri. and Sec. terminals in separate compartments.

NEW SOLAVOLT REGULATED AC VOLTAGE SUPPLIES TYPE CVL



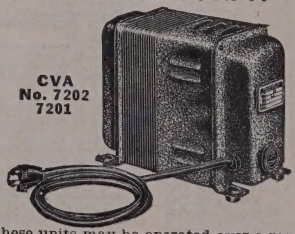
Adjustable and regulated AC voltage supplies with harmonic filters designed for use with equipment that requires constant AC voltage from 0-130 volts of undistorted wave-shape. Recommended for operations involving elements which are sensitive to power frequencies harmonically related to the fundamental. Solavolt units provide voltage regulation of ±1% for line input changes from 95 to 125 volts, with less than 3% total harmonic distortion of the output voltage wave. Regulation is automatic and substantially instantaneous — maximum response time is 1.5 cycles. All units self-protecting against short circuits.

Type 50105—Maximum current, 3 amps. 250VA. 11½ x 7½ x 12⅝. Net Each..... $110.00

Type 50106—Maximum current, 7.5 amps. 500VA. 12½ x 7½ x 14⅜. Net Each..... $153.00

PLUG-IN TYPE SOLA CONSTANT VOLTAGE TRANSFORMERS FOR TV

CVA No. 7202 7201

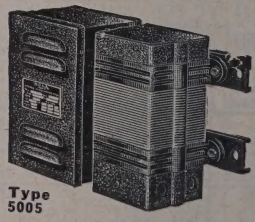


These units may be operated over a range of 175 VA to 300 VA to perform on almost all 10", 12", and 16" TV receivers. If additional outlets are provided for changers, etc., check the load to see that the 300 VA will not be exceeded. These units are equipped with a series operated relay. It functions when set switch is closed, and connects the CVA into the primary.

Sola No. 7202—For 10" to 16" sets, VA from 175-300. 9⅛ x 4½ x 7¼. Shipping weight 26 lbs. Net Each..... $37.50

Sola No. 7201—For 7" and 10" sets, VA from 110-180. 8⅛ x 4½ x 7¼. Shipping weight 19 lbs. Net Each..... $34.50

SOLA LOW HARMONIC DISTORTION TYPE CVH



Type 5005

Designed for use with equipment that requires a stabilized source of undistorted voltage. Less than 3% harmonic distortion in the output voltage wave. Input 95-125 volts; Output 115 volts. Two-unit channel-mounted construction. Enclosed terminals. *Equipped with primary cord, secondary receptacle.

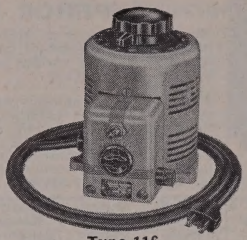
Sola No.	Output V. A.	Shpg. Wt. Lbs.	Net Each
5003*	60	35	$ 35.00
5004*	120	45	44.00
5005	250	60	70.00
5006	500	70	105.00
5008	1000	160	175.00
5010	2000	320	310.00

397X-54A

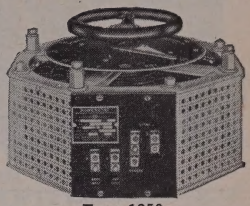
Superior Electric Powerstats

STANDARD POWERSTAT VARIABLE TRANSFORMERS

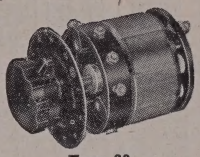
POWERSTAT Variable Transformers are auto-transformers of toroidal core design, with a movable brush-tap which rotates to deliver a continuously-adjustable output voltage from AC power lines. Into each Powerstat are incorporated superior qualities of top electrical performance, rugged mechanical construction, compact design and durability. Powerstats feature zero waveform distortion, excellent regulation, conservative ratings, standard mountings, smooth control and high efficiency. Powerstats are available with motor drives for push-button remote control, or for use with automatic controllers.



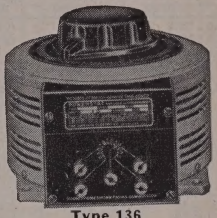
Type 116



Type 1256



Type 20



Type 136

SINGLE PHASE

Seco†† No.	Line Volt.	Freq.	Output Volt.	Output Max. Amp.	Output Max. KVA.	Price Each Manual	Price Each Motor* Driven
10	120	**60	#0-132	1.25	.165	$ 8.50	.....
20	120	**60	#0-140	3.0	.42	12.50	.....
116U	120	50/60	#0-140	7.5	1.0	18.00	.....
116	120	50/60	#0-140	7.5	1.0	23.00	.....
3PF116	120	50/60	0-140	7.5	1.0	30.00	.....
3TF116	120	50/60	0-140	7.5	1.0	30.00	.....
3PN116	120	50/60	0-140	7.5	1.0	30.00	.....
136	120	50/60	#0-140	20.0	2.8	50.00	$190.00
F136	120	50/60	#0-140	20.0	2.8	55.00	.....
2PF136	120	50/60	#0-140	20.0	2.8	65.00	.....
2TF136	120	50/60	#0-140	20.0	2.8	65.00	.....
3PF136	120	50/60	#0-140	20.0	2.8	65.00	.....
3TF136	120	50/60	#0-140	20.0	2.8	65.00	.....
3PN136	120	50/60	#0-140	20.0	2.8	65.00	.....
136-2P	120	50/60	#0-140	40.0	5.6	130.00	270.00
1156	120	50/60	0-140	45.0	6.3	118.00	258.00
F1156	120	50/60	0-140	45.0	6.3	128.00	.....
1156-2P	120	50/60	0-140	90.0	12.6	269.00	409.00
1156-3P	120	50/60	0-140	135.0	18.9	418.00	558.00
1156-4P	120	50/60	0-140	180.0	25.2	613.00	753.00
1156-6P	120	50/60	0-140	270.0	37.8	1015.00	1155.00
10-2E	240	**60	#0-264	1.25	.33	25.00	.....
216U	†240	50/60	#0-280	3.0	.84	20.00	.....
216	†240	50/60	#0-280	3.0	.84	26.00	.....
3PF216	240	50/60	0-280	3.0	.84	33.00	.....
3TF216	240	50/60	0-280	3.0	.84	33.00	.....
3PN216	240	50/60	#0-280	3.0	.84	33.00	.....
116U-2S	240	50/60	#0-280	7.5	2.1	44.50	.....
116-2S	240	50/60	#0-280	7.5	2.1	49.50	.....
236	†240	50/60	#0-280	9.0	2.5	50.00	190.00
F236	240	50/60	#0-280	9.0	2.5	55.00	.....
2PF236	†240	50/60	#0-280	9.0	2.5	65.00	.....
2TF236	†240	50/60	#0-280	9.0	2.5	65.00	.....
3PF236	†240	50/60	#0-280	9.0	2.5	65.00	.....
3TF236	†240	50/60	#0-280	9.0	2.5	65.00	.....
3PN236	240	50/60	#0-280	9.0	2.5	65.00	.....
136-2S	240	50/60	#0-280	20.0	5.6	117.00	257.00
1256	†240	50/60	0-280	28.0	7.8	118.00	258.00
F1256	240	50/60	0-280	28.0	7.8	128.00	.....
1156-2S	240	50/60	0-280	45.0	12.6	261.00	401.00
1256-2P	†240	50/60	0-280	56.0	15.7	269.00	409.00
1256-3P	†240	50/60	0-280	84.0	23.5	418.00	558.00
1156-4PS	240	50/60	0-280	90.0	25.2	597.00	737.00
1256-4P	†240	50/60	0-280	112.0	31.4	613.00	753.00
1256-6PS	240	50/60	0-280	135.0	37.8	999.00	1139.00
1256-6P	240	50/60	0-280	168.0	47.0	1015.00	1155.00
216U-2S	†480	50/60	#0-560	3.0	1.7	49.00	.....
216-2S	†480	50/60	#0-560	3.0	1.7	54.00	.....
236-2S	†480	50/60	#0-560	9.0	5.0	117.00	257.00
1256-2S	†480	50/60	0-560	28.0	15.7	261.00	401.00
1256-4PS	†480	50/60	0-560	56.0	31.4	597.00	737.00
1256-6PS	†480	50/60	0-560	84.0	47.0	999.00	1139.00

THREE PHASE

10-2E	120	**60	#0-132	1.25	.29	25.00	.....
20-2D	120	**60	#0-140	3.0	.73	37.00	.....
116U-2D	120	50/60	#0-140	7.5	1.8	44.50	.....
116-2D	120	50/60	#0-140	7.5	1.8	49.50	.....
136-2D	120	50/60	#0-140	20.0	4.8	117.00	257.00
1156-2D	120	50/60	0-140	45.0	10.9	261.00	401.00
1156-4D	120	50/60	0-140	90.0	21.8	597.00	737.00
1156-6D	120	50/60	0-140	135.0	32.7	1015.00	1155.00
10-3E	240	60	0-240	1.25	.52	40.00	.....
20L-3Y	240	60	0-240	3.0	1.2	59.50	.....
216U-2D	†240	50/60	#0-280	3.0	1.5	49.00	.....
216-2D	†240	50/60	#0-280	3.0	1.5	54.00	.....
116U-3Y	240	**60	#0-280	7.5	3.6	61.50	.....
116-3Y	240	**60	#0-280	7.5	3.6	68.00	.....
236-2D	†240	50/60	#0-280	9.0	4.4	117.00	257.00
136-3Y	240	**60	#0-280	20.0	9.7	170.00	310.00
1256-2D	†240	50/60	0-280	28.0	13.6	261.00	401.00
1156-3Y	240	**60	0-280	45.0	21.8	394.00	534.00
1256-4D	†240	50/60	0-280	56.0	27.2	597.00	737.00
1256-6D	†240	50/60	0-280	84.0	40.7	1015.00	1155.00
1156-6Y	240	**60	0-280	90.0	43.6	999.00	1131.00
216U-3Y	†480	**60	#0-560	3.0	2.9	69.50	.....
216-3Y	†480	**60	#0-560	3.0	2.9	76.00	.....
236-3Y	†480	**60	#0-560	9.0	8.7	170.00	310.00
1256-3Y	†480	**60	0-560	28.0	27.2	394.00	534.00
1256-6Y	†480	**60	0-560	56.0	54.3	991.00	1131.00

OIL-COOLED POWERSTATS

O-116	120	50/60	0-140	15.0	2.1	95.00	.....
O-216	240	50/60	0-280	6.0	1.7	99.00	.....

FOOTNOTES TO ADJACENT TABLE

†Supplied with terminals for operating at one-half this input voltage if desired.

††**Letters in Part Numbers Indicate as follows:**

F—Cartridge type fuse with enclosed terminal box.
2PF—Two-prong parallel-bladed plug and receptacle, cartridge type fuse and holder.
2TF—Same as 2PF except twist-lock plug and receptacle.
3PF—Same as 2PF except with third wire grounded to frame.
3PN—Same as 3PF except NEMA plug and receptacle.
3TF—Same as 3PF except twist lock plug and receptacle.
Suffix letters and numbers (2E, 2S, 4P, 6P, etc.), indicate ganged units. Numeral shows number of units in assembly.
U—Supplied without protective screening, terminal enclosure, input cord, output receptacle, fuse or switch.

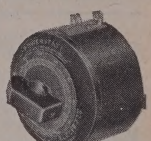
*Motor speeds for all motor-driven models prefix "M" and the speed designation to the SECO number. Time given is time for full range travel.

136-236 Series: For 5 seconds, prefix 5M; for 15 seconds, prefix 15M; for 30 seconds, prefix 30M; for 60 seconds, prefix 60M. (For example, 30M136).
1156-1256 Series: For 6 seconds, prefix MZ; for 14 seconds, prefix MY; for 19 seconds, prefix MX; for 45 seconds, prefix MW. (For example, MW1156).

**If the maximum output voltage is limited to the input voltage, the frequency range is 50-60 cycles.

#Unit supplied with terminals for limiting output voltage to line voltage if desired. Other units must be ordered "L" connected.

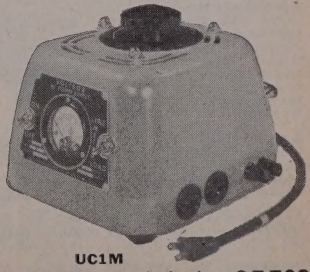
TYPE 10 POWERSTAT



For use as the variable AC voltage component in equipment with the relatively low requirements of 50, 100 and 150 watts. It is an autotransformer of toroidal design with a movable brush tap. Rotation of tap delivers any desired output voltage from **0 to 132 volts.** Adjustment, to fractional voltages if desired, is smooth and stepless. It will deliver a variable voltage to any load up to its rated capacity. Includes a glass-smooth commutator surface, advanced winding technique, zero waveform distortion and superior core and coil design. Tapped to allow range from 0 to line voltage or to 10% above line voltage. Easily installed, mounts under a 3" chassis. **Input:** 120 volts, 60cps, 1 phase. **Output:** 0-120 or 0-132 volts, 1.25 amps, 150/165 VA. **Weight:** 1 lb. 13 oz.

Superior Electric Model 10—Price Each..... **$8.50**

VOLTBOX AC POWER SUPPLY



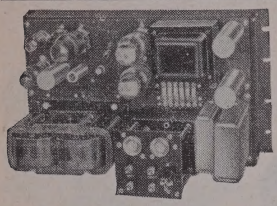
UC1M

Powerstat variable transformer, direct reading voltmeter, 3 output receptacles and 2 Superior binding posts. Separate Off-On switches, fully fused. 6-ft. line cord, plug.

Type UC1M Input: 120 V. 50/60 cycles single phase AC. Output: 0-140 V. 7.5 amps, 1000 va. Price Each... **$53.00**

Type UC2M—Input: 240 V. 50/60 cycles single phase AC. Output: 0-280 V. 3.0 amps, 840 va. Price Each.... **$55.00**

Voltage Regulators, Components



SUPERIOR STABILINE VOLTAGE REGULATORS

Two distinct types of Stabiline voltage regulators are available to meet various individual requirements.

TYPE IE—Electronically corrects line voltage variations instantaneously. Waveform distortion does not exceed 3%. For very close control and instantaneous correction in laboratories, test lines, etc.

TYPE EM—Very sensitive detector controls a motor-driven powerstat variable transformer and auxiliary transformer. Fast correction of line variations. Zero waveform distortion and high efficiency. Used to control industrial loads, and in equipment where zero waveform distortion is important.

NOTES—Numbers ending in "R" are for rack mounting. *Three-phase models; all others are single-phase. †May be used on 208 or 230-volt supply. ‡May be used on 208 or 230-volt supply, 3 or 4 wire. ††Input voltage range when operated at nominal output voltage. #Correction rate computed on basis of input voltage range and regulator speed. xOpen Delta connected. **Frequency tolerance ±10%.

Superior Number	Nominal Output Voltage	Cycles AC	Input Voltage Range††	Output Voltage Range	Load Range Amperes	Rated Output KVA	Correction Rate: Seconds/Volt#	Approx. Wt. Pounds Net	Approx. Wt. Pounds Shpg.	Superior Number	List Price
IE51002	115	60**	95–135	110–120	0–2.2	0.25	.....	45	55	IE51002	$ 236.00
IE51002R	115	60**	95–135	110–120	0–2.2	0.25	.....	35	64	IE51002R	236.00
IE51005	115	60**	95–135	110–120	0–4.5	0.50	.....	57	67	IE51005	270.00
IE51005R	115	60**	95–135	110–120	0–4.5	0.50	.....	48	108	IE51005R	260.00
IE5101	115	60**	95–135	110–120	0–8.5	1.0	.....	80	92	IE5101	310.00
IE5101R	115	60**	95–135	110–120	0–8.5	1.0	.....	63	144	IE5101R	300.00
IE5102	115	60**	95–135	110–120	0–22.0	2.5	.....	153	253	IE5102	435.00
IE5102R	115	60**	95–135	110–120	0–22.0	2.5	.....	135	221	IE5102R	425.00
IE5105	115	60**	95–135	110–120	0–43.5	5.0	.....	232	362	IE5105	525.00
IE52002	230	60**	195–255	220–240	0–1.1	0.25	.....	45	55	IE52002	236.00
IE52002R	230	60**	195–255	220–240	0–1.1	0.25	.....	35	64	IE52002R	236.00
IE52005	230	60**	195–255	220–240	0–2.2	0.50	.....	57	67	IE52005	270.00
IE52005R	230	60**	195–255	220–240	0–2.2	0.50	.....	48	108	IE52005R	260.00
IE5201	230	60**	195–255	220–240	0–4.5	1.0	.....	80	92	IE5201	310.00
IE5201R	230	60**	195–255	220–240	0–4.5	1.0	.....	63	144	IE5201R	300.00
IE5202	230	60**	195–255	220–240	0–11.0	2.5	.....	138	236	IE5202	435.00
IE5202R	230	60**	195–255	220–240	0–11.0	2.5	.....	120	206	IE5202R	425.00
IE5205	230	60**	195–255	220–240	0–22.0	5.0	.....	232	362	IE5205	525.00
IEL51005	115	50**	95–135	110–120	0–4.5	0.50	.....	88	100	IEL51005	385.00
IEL51005R	115	50**	95–135	110–120	0–4.5	0.50	.....	68	149	IEL51005R	375.00
IEL5101	115	50**	95–135	110–120	0–8.5	1.0	.....	88	100	IEL5101	400.00
IEL5101R	115	50**	95–135	110–120	0–8.5	1.0	.....	68	149	IEL5101R	390.00
IEL52005	230	50**	195–255	220–240	0–2.2	0.50	.....	88	100	IEL52005	410.00
IEL52005R	230	50**	195–255	220–240	0–2.2	0.50	.....	68	149	IEL52005R	400.00
IEL5201	230	50**	195–255	220–240	0–4.5	1.0	.....	88	100	IEL5201	425.00
IEL5201R	230	50**	195–255	220–240	0–4.5	1.0	.....	68	149	IEL5201R	415.00
IEL5202	230	50**	195–255	220–240	0–11.0	2.5	.....	151	251	IEL5202	475.00
IEL5202R	230	50**	195–255	220–240	0–11.0	2.5	.....	133	219	IEL5202R	465.00
EM4102	115	50/60	95–135	110–120	0–17.5	2.0	.075	79	90	EM4102	410.00
EM4102R	115	50/60	95–135	110–120	0–17.5	2.0	.075	62	142	EM4102R	375.00
EM4106	115	50/60	95–135	110–120	0–52.0	6.0	.15	114	133	EM4106	450.00
EM4115	115	50/60	95–135	110–120	0–130.0	15.0	.15	250	388	EM4115	650.00
EM4207†	230	50/60	195–255	220–240	0–32.5	7.5	.10	149	292	EM4207†	525.00
EM4228†	230	50/60	195–255	220–240	0–120.0	27.5	.10	288	410	EM4228†	750.00
EM4407	460	50/60	400–520	420–460	0–15.0	6.6	.05	165	300	EM4407	650.00
EM4418	460	50/60	400–520	420–460	0–40.0	17.6	.05	260	400	EM4418	775.00
EM6210Y*‡	230	50/60	195–255	220–240	0–25.0	10.0	.10	359	562	EM6210Y*‡	950.00
EM6215Y*‡	230	50/60	195–255	220–240	0–38.0	15.0	.10	387	590	EM6215Y*‡	990.00
EM6220Y*‡	230	50/60	195–255	220–240	0–50.0	20.0	.10	412	612	EM6220Y*‡	1060.00
EM6245Y*‡	230	50/60	195–255	220–240	0–113.0	45.0	.32	755	1100	EM6245Y*‡	1465.00
EM6270D*x	230	50/60	195–255	220–240	0–175.0	70.0	.32	800	1150	EM6270D*x	1850.00
EM6412Y*	460	50/60	400–520	420–460	0–16.0	12.5	.05	363	566	EM6412Y*	1050.00
EM6417Y*	460	50/60	400–520	420–460	0–22.0	17.5	.05	391	594	EM6417Y*	1135.00
EM6425Y*	460	50/60	400–520	420–460	0–33.0	25.0	.05	409	612	EM6425Y*	1210.00
EM6450Y*	460	50/60	400–520	420–460	0–66.0	50.0	.16	770	1100	EM6450Y*	1610.00
EM6475Y*	460	50/60	400–520	420–460	0–100.0	75.0	.16	825	1210	EM6475Y*	1885.00
EM64100Y*	460	50/60	400–520	420–460	0–131.0	100.0	.21	840	1225	EM64100Y*	1950.00

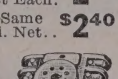
AMPHENOL INDUSTRIAL TUBE SOCKETS

146-109

Amphenol No. 146-109—Medium 4-Pin Angle Socket. Low-loss bakelite. Screw type terminals. For RETMA A4-10 and similar based tubes. Safety shields are 1.377" ID., depth 1⅛". With safety shield for tubes with or without bayonet. Net Each. **$2.40**

Amphenol No. 146-110—Same as 146-109 less safety shield. Net.. **$2.40**

Amphenol No. 146-103. Octal Industrial Socket accommodates all tubes passing RETMA gage GB8-1. Molded of arc-resisting melamine for mounting above and below chassis. Net Each..... **99c**



146-103

Amphenol No. 146-104—Same as 146-103 with 4 molded-in, threaded inserts for tie points. Net Each..... **$1.29**

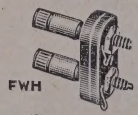
Model 26-190-32—Receptacle. Net **$3.20**

Model 26-159-32—Plug. Net Each **2.56**

Amphenol No. 146-203—Same as No. 146-103 except for bottom mounting. Net Each..... **99c**

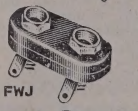
Amphenol No. 146-204—Same as No. 146-104 except for bottom mounting. Net Each..... **$1.29**

NATIONAL COMPONENTS



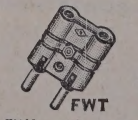
FWH

Type FWH—Molded insulators, serrated bosses allowing thinnest panel to be gripped firmly. Posts as above. Net Ea.. **76c**



FWJ

Type FWJ—Same insulators as FWH but has jacks. When used with FWF, no exposed metal when in place. Net Each..... **62c**

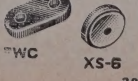


FWT

Type FWT—Banana plug. Leads brought direct from plug or thru hole at bottom. Top designed to accept additional plugs. Mica-filled bakelite body, plugs and screws nickel plated brass.... Net Each..... **$1.14**

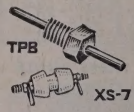
FWA FWE

Type FWA—Post, brass, nickel plated. Net Each..... **23c**



FWC XS-6

Type FWE—Jack, brass, nickel plated. Net Each..... **17c**



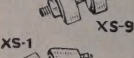
TPB

Type TPB—Threaded polystyrene bushing with removable .093 conductor molded in. ¼" diam, 32 thread. Per dozen. Net Price..... **86c**

XS-7

Type XS-7—Steatite bushings. Prices include male and female bushings with metal fittings. ⅜" hole. Net Each..... **42c**

XS-8



XS-9

Type XS-1—Prices listed as per pair, including metal fittings. Insulation steatite. 1" hole. Per Pair Net Price..... **83c**

XS-1

Type XS-2—1½" hole. Per Pair. Net Price..... **93c**

XS-2

Type XS-8—½" hole. Net Each..... **55c**

CERAMIC PLATE OR GRID CAPS

Soldering lug and contact one-piece. Lug ears annealed and solder dipped to facilitate easy combination "mechanical plus soldered" connection of cable.

Net Each

National No. SPP-9—⅜"..... **24c**

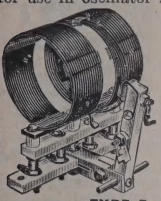
National No. SPP-3—⅜"..... **24c**

301X-55A

Barker & Williamson Equipment

AIR INDUCTORS

Minimum of dielectric in the coil field, extremely low losses, rugged construction. Each air inductor is a completely finished unit. All coils are equipped with banana type plugs. Type "B" is for use in oscillator and buffer-doubler stages developing up to 100 W. power. Type "T" is especially suited for high powered neutralized buffer and final tank stages where powers of 500 W. are developed. Type "HD" is for maximum power. Handles a kilowatt with ease.



JACK BAR

B & W No.	Coil Type	Net Each
3228	B	$0.85
3321	T	1.25
3721	HD	1.75

TYPE B

B & W No.	B & W Type	Band Met.	Net Each
Without Link—Ctr. Tapped			
3200	5B	5	$1.65
3201	10B	10	
3202	15B	15	1.74
3203	20B	20	
3204	40B	40	2.16
3205	80B	80	2.58
End Link—Without Tap			
3207	6BEL	6	2.91
3208	10BEL	10	
3209	15BEL	15	2.97
3210	20BEL	20	
3211	40BEL	40	3.39
3212	80BEL	80	3.81
Center Link—Center Tapped			
3214	6BCL	6	2.91
3215	10BCL	10	
3216	15BCL	15	2.97
3217	20BCL	20	
3218	40BCL	40	3.39
3219	80BCL	80	3.81
Var. Link—Center Tapped			
3221	6BVL	6	2.31
3222	10BVL	10	
3223	15BVL	15	2.40
3224	20BVL	20	
3225	40BVL	40	2.73
3226	80BVL	80	3.12

TYPE T

B & W No.	B & W Type	Band Met.	Net Each
3301	10T	10	1.80
3302	15T	15	1.92
3303	20T	20	
3304	40T	40	2.31
3305	80T	80	2.73

TYPE TCL

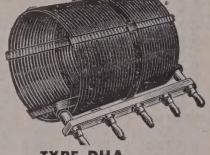
B & W No.	B & W Type	Band Met.	Net Each
Center Link—Center Tapped			
3308	10TCL	10	$3.45
3309	15TCL	15	3.57
3310	20TCL	20	
3311	40TCL	40	3.96
3312	80TCL	80	4.38
Var. Link—Center Tapped			
3315	10TVL	10	2.64
3316	15TVL	15	2.73
3317	20TVL	20	
3318	40TVL	40	3.12
3319	80TVL	80	3.57

TYPE HD

B & W No.	B & W Type	Band Met.	Net Each
Without Link—Ctr. Tapped			
3701	10HD	10	3.72
3702	15HD	15	4.50
3703	20HD	20	
3704	40HD	40	4.95
3705	80HD	80	5.76
Center Link—Center Tapped			
3708	10HDCL	10	7.02
3709	15HDCL	15	7.83
3710	20HDCL	20	
3711	40HDCL	40	8.25
3712	80HDCL	80	9.06
Var. Link—Center Tapped			
3715	10HDVL	10	5.37
3716	15HDVL	15	6.21
3717	20HDVL	20	
3718	40HDVL	40	6.60
3719	80HDVL	80	7.41

ANTENNA INDUCTORS

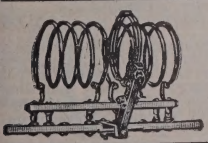
Types TA and HDA Antenna Inductors are wound with tinned copper wire for ease in tapping feeders to coils. Equipped with fixed center links for coupling to either fixed or variable linked final tank circuits through a low impedance line. Type TA coils for power input up to 500 W. Type HDA coils for power input up to 1 Kw.



TYPE DHA

TYPE TA

B&W No.	B&W Type	L.F. Res Cap. Mmf	Net Each	Band Met.	B&W No.	B&W Type	L.F. Res Cap. Mmf	Net Each
3601	10TA	20	$3.45	10	3607	10DHA	20	$7.02
3602	15TA	23	3.57	15	3608	15DHA	20	7.83
3603	20TA	23	3.57	20	3609	20HDA	20	7.83
3604	40TA	34	3.96	40	3610	40HDA	20	8.25
3605	80TA	50	4.38	80	3611	80HDA	34	9.06



TYPE TVH

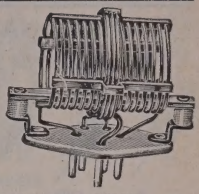
Type TVH are for up to 500 W. input. These units can be used with a split stator capacitor of 50 mmf per side for the 10, 20, 40 meter bands and for the 80 meter band with the addition of a 25 mmf padding capacitor. Net Each..... $4.71

B & W No.	B & W Type	Band Meters	B & W No.	B & W Type	Band Meters
3501	10TVH	10	3504	40TVH	40
3502	15TVH	15	3505	80TVH	80
3503	20TVH	20	3506	160TVH	160

B & W No. 3507—Jack Bar Assembly for above Net Each..... $5.16

JUNIOR INDUCTORS

Rated up to 75 watts input. Fitted with standard five-prong steatite base. Small size for compact construction. May be used in the oscillator, buffer or final amplifier stage up to 75 watts and plate voltages up to 850 V. Three different assemblies provided any of which may be used in capacity coupled circuits by omitting connection to links. Net Each..... $1.65



END LINK B & W No.	END LINK B & W Type	CENTER LINK B & W No.	CENTER LINK B & W Type	VARIABLE LINK B & W No.	VARIABLE LINK B & W Type	Band Mtrs.
3100	6JEL	3107	6JCL	3114	6JVL	5
3101	10JEL	3108	10JCL	3115	10JVL	10
3102	15JEL	3109	15JCL	3116	15JVL	15
3103	20JEL	3110	20JCL	3117	20JVL	20
3104	40JEL	3111	40JCL	3118	40JVL	40
3105	80JEL	3112	80JCL	3119	80JVL	80
3106	160JEL	3113	160JCL	3120	160JVL	160

"BABY" AIR INDUCTORS

Rated at 25 watts. Just the thing for crowded layouts, portables, field transmitters. Small and efficient. Measure only 1½" x 1¼". Made by special B & W process which insures perfect air-spacing, maximum strength, fine appearance and high efficiency with an absolute minimum of insulating material. Available in four types. Conservatively rated. Universal 5-prong Alsimag 196 bases. Net Each..... $1.26

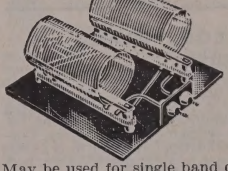
Barker and Williamson Coil No. Straight	C. T.	End Link	Ctr. Link	Band Meters	Ind. Hy.
80M	80MC	80MEL	80MCL	80	40
40M	40MC	40MEL	40MCL	40	14
20M	20MC	20MEL	20MCL	20	3.5
15M	15MC	15MEL	15MCL	15	2.7
10M	10MC	10MEL	10MCL	10	1.1

MINIDUCTORS

For use in limited space. Can be cut to size. Amazingly high Q characteristic. Useful for tank circuit coils, RF chokes, HF IF transformers, loading coils, etc.

2 INCH B & W No.	Dia., In.	Turns Per In.	Net Each	3 INCH B & W No.	Dia., In.	Turns Per In.	Net Each
3001	½	4	36c	3009	¾	4	54c
3002	½	8		3010	¾	8	
3003	½	16		3011	¾	16	
3004	½	32		3012	¾	32	
3005	⅝	4	45c	3013	1	4	60c
3006	⅝	8		3014	1	8	
3007	⅝	16		3015	1	16	
3008	⅝	32		3016	1	32	

BALUN COILS TYPE 3975



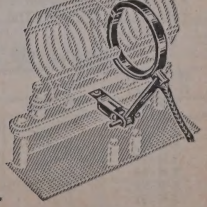
These sturdy bifilar air-wound inductors may be used for impedance matching in both transmitters and receivers. When two of these coil units are assembled and wired together conforming to wiring instructions, the assembly will provide a multiband Balun type impedance matching device which can be used to meet the following impedance matching requirements: **1**—unbalanced 75 ohms to balanced 75 ohms; **2**— unbalanced 75 ohms to valanced 300 ohms. May be used for single band operation. Each coil has impedance of 150 ohms.

Barker and Williamson Model 3975—Net Each..... $3.75

FARADAY SHIELDED LINKS

These links effectively reduce harmonic or spurious signal radiations normally transferred by condenser coupling. Adaptable to all link coupled circuits, they materially aid in reduction of TV and BC interference. May be used with external antenna tuning units or in conjunction with harmonic filters of low-pass or bandpass type. Types 3781, 3782 and 3783 for HVDL series coils. 3581, 3582 and 3583 for TVL, TVH and BVL series coils.

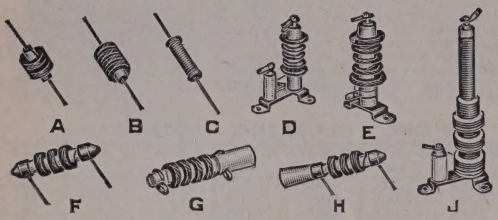
B & W No.	Turns	Wattage	Net Each
3581	1	500	$5.10
3582	2	500	5.10
3583	3	500	5.10
3588	Link Arm Ass'bly		2.40
3589	Link Arm & Hinge		2.70
3781	1	1000	5.40
3782	2	1000	5.40
3783	3	1000	5.40
3788	Link Arm Ass'bly		2.70
3789	Link Arm & Hinge		3.00



Capacitors, Tanks, Turrets, Chokes

NATIONAL R.F. CHOKES, TANKS, COIL FORMS, DIALS AND KNOBS

R.F. RECEIVER & TRANSMITTER CHOKES



Type R-33 R. F. Receiver Choke (Fig. A)—2-sect. rated at 33 ma. Specify 10, 50, 100, 750 μh or 1 μh single layer solenoid choke. 5/8" long x 5/16" max. diam. Net Each..... **40c**

Type R-50 R. F. Receiver Choke (Fig. B)—3 and 4-sect., rated at 50 ma. Available in .5, 1 and 2.5 mh (**Specify**). Size 1" long x 15/32" max. diam. Net Each..... **40c**

Type R-50-I Iron Core R. F. Receiver Choke—As above but available only in 10 mh size. Net Each..... **61c**

Type R-60 R. F. Receiver Choke (Fig. C)—Rated 500 ma. In 2 and 4 μh sizes. 1 1/8" x 5/16" diam. Net Each..... **40c**

Type R-152 R. F. Transmitter Choke (Fig. D)—For 2 to 4 mc range. Ideal for high power stages in the 80-meter amateur band. Inductance 4 mh, DC resistance 10 ohms, DC current 600 ma. Honeycomb wound on steatite core. Net Each..... **$2.01**

Type R-154 R. F. Transmitter Choke (Fig. D)—For the 20, 40 and 80-meter bands. Inductance 1 mh, DC resistance 6 ohms, DC current 600 ma. Honeycomb wound on steatite. Net. **$2.01**

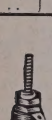
Type R-154U Choke (Fig. E)—As R-154 but without third foot and less small insulator. Net Each..... **$1.61**

Type R-175A R. F. Transmitter Choke (Fig. J)—For parallel or series feed in transmitters with high plate voltage up to 3000 modulated or 4000 unmodulated. High reactance throughout the 6, 10 and 20 meter as well as 40 and 80 meter bands. Inductance 145 μh, distrib. cap'y .6 mmf. DC resist. 5 ohms, DC current 800 ma, voltage breakdown to base 12,500 volts. Net..... **$2.59**

Series R-100 and R-300 R. F. Receiver Chokes (Figs. F, G, H)—R-100 and R-300 have pigtail leads; R-100U and R-300U have pigtail leads and removable stand-off insulator; R-100S and R-300S have cotter-pin lug terminals and fixed stand-off ins.; R-100ST and R-300ST have a 6-32 threaded stud at each end. R-100 Series are available in 2.5, 5 and 10 μh, rated at 125 ma. R-300 Series are available in .5, 1, 2.5 and 5μh, rated at 300 ma.

Key	Number	Net Each	Key	Number	Net Each
F	R-100	$0.40	F	R-300	$0.44
H	R-100S	.48	H	R-300S	.48
G	R-100ST	.46	G	R-300ST	.46
..	R-100U	.48	..	R-300U	.48

QUALITY COIL FORMS



Type XR-50 (Ill.)—Mica-filled bakelite coil forms to be wound as desired for providing a permeability-tuned coil. Form winding length is 11/16", diameter 1/2" and iron slug 3/8" diameter by 1/2" long. Standard package of 6. Net Each..... **$1.04**

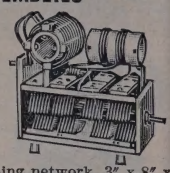
Ceramic Coil Forms—Small ceramic coil forms designed primarily for high frequency applications. Conforms to government specifications. Coil form is Grade L4 ceramic (JAN 1-10); base is silver plated brass; core is brass or iron. Supplied with two nylon rings to separate coils if more than one is wound on same form. Small holes in rings can be used to secure leads.

National Number	Grooved for Wire No.	Slug	Winding Length	Net Each
XR-60	26	Iron	.....	$1.32
XR-61	36	Brass	.....	
XR-62	Not grooved	Iron	1 1/4"	
XR-63	Not grooved	Brass	1 1/4"	
XR-70	19	Iron	.....	
XR-71	19	Brass	.....	
XR-72	Not grooved	Iron	1"	
XR-73	Not grooved	Brass	1"	

BRASS OR IRON CORE TYPES

National Number	Core	Form Length	Form Diameter	Net Each
XR-80	Brass	1 1/4"	17/64"	87c
XR-81	Iron	1 1/4"	17/64"	
XR-82	Brass	1 3/4"	17/64"	
XR-83	Iron	1 3/4"	17/64"	
XR-90	Brass	1 1/4"	3/8"	
XR-91	Iron	1 1/4"	3/8"	
XR-92	Brass	1 3/4"	3/8"	
XR-93	Iron	1 3/4"	3/8"	

MULTI-BAND TANK ASSEMBLIES



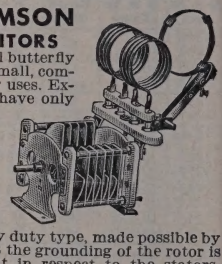
Tunes all amateur bands 80 through 10 meters with 180° rotation of shaft; coils are never changed. Built around a circuit that simultaneously tunes two harmonically unrelated frequencies, thus covering wide frequency range but maintains reasonably constant L/C ratio. For use as the all-band plate tank in push-pull or single-ended stages up to 150 watts input (1500 v. peak). Separate link coupling coil has special clips to match impedances up to 600 ohms directly. Output couples into a higher powered amplifier, antenna or antenna tuning network. 3" x 8" x 10" overall. **$21.56**

MB-150 Multi-Band Tank Assembly (Ill.)—Net Each.

MB-40SL Multi-Band Tank Assembly—Similar to MB-150 but will handle only up to 40 watts input. Use as a grid circuit for tubes having MB-150 in plate circuit. Net Each..... **$17.75**

BARKER AND WILLIAMSON

SMALL BUTTERFLY CAPACITORS



The popular B & W split stator, small butterfly type condenser has been adapted to small, compact units for general ham and other uses. Extremely compact, these **JCX** types have only 25% the frontal area of the heavy duty CX types. They are ideal for medium powered triode and tetrode stage plate circuit applications. Type **JCX** Capacitors feature precision stainless steel shafts and heavy rounded aluminum plates. Only the highest quality insulating materials are used.

An important feature in the **CX** heavy duty type, made possible by the double rotor construction, is that the grounding of the rotor is done at the same RF voltage point in respect to the stators. Opposed stator sections provide short RF paths, so desirable in high power rigs. The rear end plate has provision for built-in neutralizing capacitors. Plates are 1/16" thick, but 5/32" plates which can be operated at higher power without flashover due to the lower corona effect can be furnished at a slight increase in price.

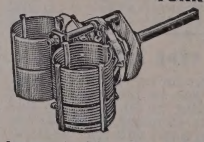
B & W Stock No.	Type	Capacity Sec. in Series Max.	Capacity Sec. in Series Min.	Capacity Per Section Max.	Capacity Per Section Min.	Mtg. Length Inches	Net Price
100	JCX100E	80	15	99	23	5 1/2	$10.80
101	JCX50E	25	10	42	13	3 3/8	8.10
102	JCX25E	16	8	25	10	2 3/4	6.60

HEAVY DUTY VARIABLE CAPACITORS

Split stator and butterfly rotor. Also in .250" and .187" gap.

Type	Gap Ins.	Capacity Sec. in Series Max.	Capacity Sec. in Series Min.	Capacity Per Section Max.	Capacity Per Section Min.	Mtg. Length Inches	Net Price
CX11A	.500	8	6	11	6	4 9/16	$15.03
CX20A	.500	13	8	20	8	5 11/16	18.39
CX30A	.500	18	10	30	10	6 13/16	21.12
CX40A	.500	23	12	40	12	7 15/16	23.76
CX49A	.500	28	14	49	14	9 1/16	27.36
CX59A	.500	33	16	59	16	10 5/16	29.13
CX68A	.500	38	18	68	18	11 5/16	31.80
CX77A	.500	43	20	77	20	12 7/16	34.53
CX87A	.500	48	22	87	22	13 9/16	37.17
CX96A	.500	53	24	96	24	14 11/16	39.84
CX105A	.500	58	26	105	26	15 13/16	42.57
CX115A	.500	62	29	115	29	16 15/16	45.21
CX124A	.500	68	30	124	30	18 1/16	47.94
CX11B	.375	9	6	11	6	4 5/16	14.61
CX22B	.375	15	8	22	8	4 13/16	17.88
CX34B	.375	21	10	34	10	5 9/16	20.61
CX45B	.375	28	12	45	12	6 3/16	23.22
CX58B	.375	33	13	58	13	6 13/16	25.80
CX70B	.375	38	15	70	15	7 7/16	28.47
CX82B	.375	45	17	82	17	8 1/16	30.96
CX94B	.375	50	19	94	19	8 11/16	33.69
CX106B	.375	56	20	106	20	9 5/16	36.21
CX118B	.375	62	22	118	22	9 13/16	38.79
CX130B	.375	68	24	130	24	10 9/16	41.52
CX141B	.375	74	26	141	26	11 3/16	44.10
CX153B	.375	80	27	153	27	11 13/16	46.68

TURRET ASSEMBLIES



75 Watt 2A "Band Hoppers" (Ill.)—Same coil design as B & W Juniors. Compact, panel controlled unit.
B & W No. 3121— Net Each..... **$5.75**

B & W Turrets (Not Ill.)—Provide a means of link coupling. Complete assembly mounted on positive action switch arranged for panel mounting through a single 3/8" hole. 75 W. turrets for use to 850 volts, 150 W. turrets rated at 1000 V. peak.

75 WATT B & W No.	75 WATT Type	75 WATT Link	75 WATT Net Each	150 WATT B & W No.	150 WATT Type	150 WATT Link	150 WATT Net Each
3810	JTCL	Ctr., C.T.	$11.25	3812	BCL	Ctr., C.T.	$14.01
3811	JTEL	End		3813	BEL	End	

B & W 35-Watt Baby Turrets—5-band switching, 10-80 meters. **BTEL**—End Linked. **BTCL**—Center Linked. Net Each..... **$10.14**

164-54A

Vector Socket-Turrets

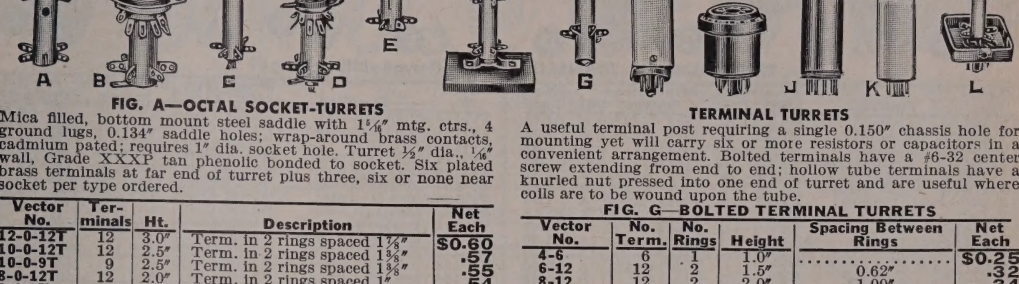


FIG. A—OCTAL SOCKET-TURRETS

Mica filled, bottom mount steel saddle with 1⅝″ mtg. ctrs., 4 ground lugs, 0.134″ saddle holes; wrap-around brass contacts, cadmium pated; requires 1″ dia. socket hole. Turret ½″ dia., 1/16″ wall, Grade XXXP tan phenolic bonded to socket. Six plated brass terminals at far end of turret plus three, six or none near socket per type ordered.

Vector No.	Terminals	Ht.	Description	Net Each
12-0-12T	12	3.0″	Term. in 2 rings spaced 1⅞″	$0.60
10-0-12T	12	2.5″	Term. in 2 rings spaced 1⅜″	.57
10-0-9T	9	2.5″	Term. in 2 rings spaced 1⅜″	.55
8-0-12T	12	2.0″	Term. in 2 rings spaced 1″	.54
8-0-9T	9	2.0″	Term. in 2 rings spaced 1″	.51
6-0-6T	6	1.5″	Terminals in 1 ring only	.47

Add letter **A** for sockets with 1½″ mtg. centers (6-0**A**-6T).
LOCTAL SOCKET TURRETS similar to those above are available. These require 1⅛″ hole and 1⅛″ mounting centers. To order these, substitute **L** for **O** in above catalog numbers.

FIG. B—MINIATURE RIVETED SOCKET-TURRETS

Mica-filled with bottom mounting steel saddles, carrying four ground lugs, ⅛″ saddle holes. Brass contacts, cadmium plated. Terminal turret ½″ dia., 1/16″ wall, Grade XXXP tan phenolic joined to socket with rivet through center of socket and turret. Six terminals at far end of turret plus three, six or none near socket end. 7-pin socket requires ⅝″ hole, ⅞″ mtg. ctrs., 9-pin socket requires ¾″ hole, 1⅛″ mtg. ctrs.

Terminal Location	Ht.	No. Term.	7-pin Type No.	7-pin Type Net	9-pin Type No.	9-pin Type Net
2 rings spaced 1″	2.0″	12	8-M-12T	$0.62	8-N-12T	$0.65
2 rings spaced 1″	2.0″	9	8-M-9T	.60	8-N-9T	.63
At far end only	1.5″	6	6-M-6T	.54	6-N-6T	.57
At far end only	1.0″	6	4-M-6T	.52	4-N-6T	.55
Shield base	.....	.....	S7	.08	S9	.09

SEPARABLE SOCKET-TURRETS

7-PIN (FIG. D) AND 9-PIN (FIG. C) BOLT TYPES

Consists of a #5-40 screw extending from end to end of the unit with a lock washer and a nut at turret end (or lock nut if so ordered). Approx. ⅛″ of thread extends beyond nut so unit may be mounted on chassis from turret end if desired. U-nuts for #4-40 screws can be ordered for mounting the saddle to the chassis. Dimensions and specs same as above types.

Terminal Location	Ht.	No. Term.	7-Pin Type No.	7-Pin Type Net	9-Pin Type No.	9-Pin Type Net
At far end only	1.5″	6	6MB-6	$0.60	6NB-6	$0.65
2 rings spaced .62″	1.5″	12	6MB-12	.62	6NB-12	.67
2 rings spaced 1″	2.0″	12	8MB-12	.65	8NB-12	.70
3 rings spaced 1″	2.0″	18	8MB-18	.74	8NB-18	.79
2 rings 1.375″	2.5″	12	10MB-12	.66	10NB-12	.71
3 rings sp. .687″	2.5″	18	10MB-18	.75	10NB-18	.80
4 (.375-.625-.375)	2.5″	24	10MB-24	.81	10NB-24	.86
2 rings sp. 1.875″	3.0″	12	12MB-12	.72	12NB-12	.74
3 rings spaced 1″	3.0″	18	12MB-18	.81	12NB-18	.83
4 (.375-1.0-3.75)	3.0″	24	12MB-24	.87	12NB-24	.89

To prevent moisture entrapment in turret tube, a solid filling dielectric can be added to order.

FIG. E—HOLLOW TUBE SOCKET-TURRETS

A knurled nut is pressed into socket end of the turret tube and is bonded with an adhesive. A short screw through center of socket holds assembly together. Indentations on base of turret engage socket and prevent twist. Hollow tube types prevent moisture from becoming entrapped inside turret tube.

No. Term.	No. Rings	Spaced	7-Pin Type No.	7-Pin Type Net	Octal Type No.	Octal Type Net	9-Pin Type No.	9-Pin Type Net
6	1	.....	4MH-6	59c	4-0-6	46c	.....	....
6	1	.....	6MH-6	60c	6-0-6	47c	6NH-6	65c
12	2	0.62″	6MH-12	62c	.....	....	6NH-12	67c
9	2	1.0″	8MH-9	63c	8-0-9	51c	8NH-9	68c
12	2	1.0″	8MH-12	65c	8-0-12	54c	8NH-12	70c
12	2	1.375″	10MH-12	66c	10-0-12	60c	10NH-12	71c

FIG. F—BREAD-BOARD SOCKET-TURRETS

These have brackets mounted at the nut end which can be used to screw units on bread-board, making a very convenient unit for experimental work. **Add letter "X"** to catalog number of bolted types to obtain this. If preferred order **X1** brackets which may be easily attached to bolt type socket-turrets. This bracket can also be attached to terminal turrets for bread-boards.

STAND-OFF SOCKETS

An octal, miniature or noval socket mounted on one end of a phenolic tube. In other end a knurled nut is inserted having a 6-32 thread in center. By this means the unit can be mounted on the end of a condenser stud or otherwise to allow the socket to have a high potential to ground.

Terminals	Height	7-Pin Type No.	7-Pin Type Net	Octal Type No.	Octal Type Net	Noval Type No.	Noval Type Net
None	1.125″	4-M	$0.65	4-0	$0.53	4-N	$0.68
None	1.625″	6-M	.69	6-0	.45	.....	.....
None	2.125″	8-M	.73	8-0	.46	8-N	.76

TERMINAL TURRETS

A useful terminal post requiring a single 0.150″ chassis hole for mounting yet will carry six or more resistors or capacitors in a convenient arrangement. Bolted terminals have a #6-32 center screw extending from end to end; hollow tube terminals have a knurled nut pressed into one end of turret and are useful where coils are to be wound upon the tube.

FIG. G—BOLTED TERMINAL TURRETS

Vector No.	No. Term.	No. Rings	Height	Spacing Between Rings	Net Each
4-6	6	1	1.0″	.....	$0.25
6-12	12	2	1.5″	0.62″	.32
8-12	12	2	2.0″	1.00″	.34
10-12	12	2	2.5″	1⅜″	.37
12-12	12	2	3.0″	1.87″	.40
HOLLOW TUBE TERMINAL TURRETS					
6H-6	6	1	1.5″	.....	$0.28
6H-12	12	2	1.5″	⅞″	.34
8H-6	6	1	2.0″	.....	.30
8H-12	12	2	2.0″	1⅛″	.35
10H-6	6	1	2.5″	.....	.35
10H-12	12	2	2.5″	1.87″	.38

FIG. H—PLUG-IN HEATER RECTIFIER

An exceedingly small rectifier-filter circuit for reducing hum by supplying DC heater current to the first stage of low-level amplifiers. Provided with octal plug for convenient mounting and occupies space above chassis only 1⅜″ x 1⅜″ x 4″. Selenium full-wave rectifier, hi-capacity electrolytic condenser filter. Input, 6.3-7.5 volts, 60 cps. Max. output current, 0.3 amp DC; output voltage approx. 85% of AC input at 0.3 amp load, approx. 95% of AC input at 0.15 amp load. RMS ripple, less than 7% at 0.3 amp.
Vector No. B3001—
Net Each..... **$5.88**

FIG. I—TUBE SOCKET TEST ADAPTERS

Each adapter has straight through plug to socket connections extended to radial test tabs on adapter skirt surrounding the socket. Tabs are recessed into skirt. Contacts of highest quality silver plated beryllium copper for long life. Sockets, shells and plug bodies of molded bakelite.

No.	Tube Type	Body Dia.	Skirt Dia.	Length*	Net Ea
T-7-M	7-Pin Min.	0.74″	1.03″	1.47″	$1.45
T-8-O	8-Pin Octal	1.26″	1.56″	1.50″	2.25
T-9-N	9-Pin Noval	0.87″	1.16″	1.47″	1.75
T-7S9	Set of above 3 types in plastic case				5.75
T-8-L	8-Pin Loctal	1.26″	1.56″	1.50″	3.00
T-7-M-S	7-Pin Min.†	0.74″	1.03″	3.25″	5.10
T-8-O-S	8-Pin Octal†	1.26″	1.56″	4.00″	4.80
T-9-N-S	9-Pin Noval†	0.87″	1.16″	3.25″	5.70

*Less prongs. †Long type for tight spots.

FIG. J—CABLE CONNECTOR PLUGS

Supply a need for connecting cables to miniature tube sockets. Consist of addition of cylindrical metal shells to tube base plugs and rubber grommets in the sidewalls of the shells to pass the cable. Nickel plated brass shells will pass into standard tube shield bases.
Vector Model P7C—7-pin, ⅝″ O.D., 2⅝″ long. Net Each **$1.41**
Vector Model P9C—9-pin, ¾″ O.D., 2⅝″ long. Net Ea.. **$1.53**

PLUG-IN UNITS

Aluminum covers quickly detached by removing screws at base, making inside completely accessible. Miniature and noval types carry military type tube shield base. Main tube shield not furnished. **Add "H"** for 9-prong octal type plug; **K** for 11-prong octal; **J** for "MFE" socket casting, beryllium contacts, silver-plated, tin dipped; **G** for impregnation of turret for moisture and fungus; **P** for perforated covers.

FIG. K—SINGLE TUBE TYPES

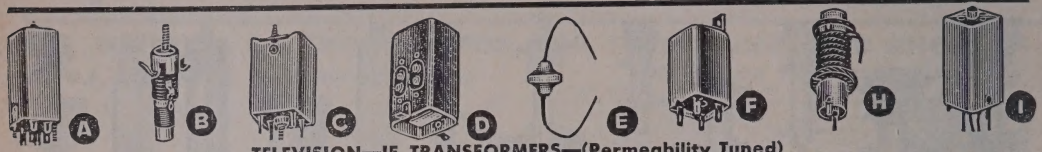
Can H.	Can W.	Term. Space	Octal Type No.	Octal Type Net	7-Pin Type No.	7-Pin Type Net	Noval Type No.	Noval Type Net
2.0″	1.37″	0.87″	.....	.....	B8-M	$1.52	B8-N	$1.57
2.5″	1.37″	1.37″	B10-O	$1.41	B10-M	1.55	B10-N	1.60
3.0″	1.37″	1.87″	B12-O	1.44	B12-M	1.57	B12-N	1.62
2.0″	2.0″	0.87″	C8-O	1.59	C8-M	1.84	C8-N	1.87
2.5″	2.0″	1.37″	C10-O	1.62	C10-M	1.86	C10-N	1.90
3.0″	2.0″	1.87″	C12-O	1.65	C12-M	1.90	C12-N	1.94
No Can		0.87″	A8-O	.90	A8-M	.97	A8-N	.98
No Can		1.37″	A10-O	.93	A10-M	1.66	A10-N	1.01
No Can		1.87″	A12-O	.96	A12-M	1.02	A12-N	1.03

FIG. L—TWO TUBE TYPES

2.0″	2.0″	0.62″	.....	.....	C8-MM	2.27	C8-NN	2.41
2.5″	2.0″	1.0″	.....	.....	C10-MM	2.30	C10-NN	2.44
3.0″	2.0″	1.37″	.....	.....	C12-MM	2.32	C12-NN	2.46
TYPES WITH CAN AND PLUG ONLY								
2.0″	1⅜″	.....	B-8	.90	C-8*	1.08	.....	.....
2.5″	1⅜″	.....	B-10	.93	C-10*	1.11	.....	.....
3.0″	1⅜″	.....	B-12	.96	C-12*	1.14	.....	.....
TYPES WITHOUT SOCKETS								
2.0″	1⅜″	.....	B-8T	1.33	C-8T*	1.50	.....	.....
2.5″	1⅜″	.....	B-10T	1.36	C-10T*	1.53	.....	.....
3.0″	1⅜″	.....	B-12T	1.38	C-12T*	1.56	.....	.....

Any of these types may be obtained less sockets but with terminal turrets and plugs. ***C-8**, 2″ x 2″; **C-10**, 2″ x 2½″; **C-12**, 2″ x 3″.

Merit IF-RF Coils



TELEVISION—IF TRANSFORMERS—(Permeability Tuned)

Merit No.	Function	Freq. Mc.	Mtg. Ctrs.	Dimensions Inches	Mtg.	Net Each
TV-100	1st Pix Amp.	25.3	⅞	⅞ x ⅞x2⅛	A	$1.65
TV-101	2nd Pix Amp.	22.3	⅞	⅞ x ⅞x2¼	A	1.25
TV-102	3rd Pix Amp.	25.2	7/16 hole	½x1½	B	.48
TV-103	4th Pix Amp. (Det.)	23.4	7/16	½x1½	B	.48
TV-104	1st Sound (Amp.)	21.25	⅞	⅞ x ⅞x2¼	A	1.32
TV-105	2nd Sound (Amp.)	21.25	⅞	⅞ x ⅞x2¼	A	1.32
TV-106	Sound Discrim.	21.25	1⅛	1⅛x1⅛x2½	A	1.55
TV-107	Converter	21.8	⅞	⅞ x ⅞x2¼	A	1.65
TV-108	Input Amp.	4.5	1 1/16	1⅛x1⅛x2⅛	A	1.65
TV-109	Sound Discrim.	4.5	1 1/16	1⅛x1⅛x2⅛	A	1.80
TV-110	Sound Ratio Det.	4.5	1 1/16	1⅛x1⅛x2⅛	A	2.00
TV-111	Sound Ratio Det.	21.25	1⅛	1⅛x1⅛x2½	A	2.00
TV-112	Tunable Choke	21.25	7/16	½x1½	B	.60
TV-113	Sound Amp.	4.5	Clip	¾ x ¾x2	K	1.65

Merit No.	Function	Freq. Mc.	Mtg. Ctrs.	Dimensions Inches	Mtg.	Net Each
TV-114	Sound Discrim.	4.5	Clip	¾ x ¾x2	K	2.00
TV-115	Sound Ratio Det.	4.5	Clip	¾ x ¾x2	K	2.00
TV-116	Video IF	21-25	7/16 hole	½x1½	K	1.05
TV-125	Video IF Trans.	44	Clip	¾ x ¾x2	K	1.44
TV-126	Video IF Choke	44	Clip	¾ x ¾x2	K	1.32
TV-127	Video IF Trans.	42.5	Clip	¾ x ¾x2	K	1.65
TV-128	Video IF Trans.	45.75	Clip	¾ x ¾x2	K	1.65
TV-129	Video IF Choke	45.75	Clip	¾ x ¾x2	K	1.65
TV-130	Tunable Video IF	41-46	5/16 hole	½x2¼	B	.78
TV-131	Tunable Vid. IF (Ch)	41-46	5/16 hole	½x1¼	B	.72
TV-132	Video IF Choke	42.5	5/16 hole	½x2	B	1.50
TV-133	Video IF Choke	42.25	5/16 hole	½x2	B	1.50
TV-134	Video IF Choke	45.75	5/16 hole	½x2	B	1.50

TRAPS—PERMEABILITY TUNED—(Mtg. B.)

Merit No.	Function	Freq. Mc.	Mtg. Centers	Dimensions	Net Each
TV-150	Cath. Trap*	21.25	7/16 hole	½ O.D. x 1½	$1.20
TV-151	Sound Trap	4.5	7/16 hole	½ O.D. x 1½	.60
TV-152	Cath. Trap	39.75			1.05
TV-153	Adj. Ch. Tr.	47.25			1.05

*Includes Condenser.

HORIZONTAL "SYNC" TRANSFORMERS—(Mtg. C)

Merit No.	System	Mtg. Centers	Dimensions	Net Each
TV-160	Sync Lock	1 7/16	1 7/16 x 1 7/16 x 2	$1.65
TV-161	Sync Guide	1 7/16	1 7/16 x 1 7/16 x 2	1.20
TV-162	Sync Freq. & Phase	1 7/16	1 7/16 x 1 7/16 x 2	1.50
TV-163	Ringing Coil	7/16 hole*	.....	1.20

*Mtg. B.

ANTENNA COUPLING TRANSFORMERS—(Mtg. D)

Merit No.	Impedance Ratio	Mounting	Dimensions	Net Each
TV-170	52/300 or 300/52	"L" Bracket	¾ x ¾ x 1⅜	$1.65
TV-171	72/300 or 300/72	"L" Bracket	¾ x ¾ x 1⅜	1.65

HIGH-PASS FILTERS—(Mtg. F)

Merit No.	Line Impedance	Mounting	Dimensions	Net Each
TV-210	72 Ohm	"L" Bracket	1 7/16 x 1⅞ x 3½	$3.30
TV-211	300 Ohm	"L" Bracket	1 7/16 x 1⅞ x 3½	3.30

PEAKING COILS—(Mtg. E—)

Merit No.	Microhenries	Color Code	Shunt Ohms	Net Each
TV-180	36	Black	.....	27c
TV-181	93	Red	.....	
TV-182	120	Blue	22,000	
TV-183	180	White	39,000	
TV-184	180	Yellow	.....	30c
TV-185	250	Green	.....	
TV-186	73	.....	10 meg.	
TV-187	250	.....	22,000	
TV-188	500	.....	10 meg.	
TV-189	.8	Orange	.....	
TV-190	350	.....	.....	36c
TV-191	350	.....	100K	

WAVE TRAPS, TV-FM—(Mtg. D)

Merit No.	Freq. Range	Mtg. Centers	Dimensions	Net Each
TV-220	150-250 MC.	1 7/16	1⅜ x 1⅞ x 3⅜	$2.65
TV-221	75-150 MC.	1 7/16	1⅜ x 1⅞ x 3⅜	
TV-222	40- 80 MC.	1 7/16	1⅜ x 1⅞ x 3⅜	
TV-223	20- 40 MC.	1 7/16	1⅜ x 1⅞ x 3⅜	

HI-VOLT OSCILLATOR TRANSFORMERS—(Mtg. H)

Merit No.	Output Volts	Mtg. Centers	Dimensions	Net Each
TV-230	To 4,000	1¼	1¼ Dia. x 3¾ H.	$4.95
TV-231	To 30,000	2¼	2¼ Dia. x 6 H.	8.25

FM—IF TRANSFORMERS—(Permeability Tuned)

Merit No.	Description	Freq.	Mtg. Centers	Dimensions	Mtg.	Net Each
FM-250	Discriminator	10.7 MC.	1 1/16	1¼ x 1⅛ x 2⅛	A	$2.00
FM-251	Amp. Interstage	10.7 MC.	1 1/16	1⅛ x 1⅛ x 2⅛	A	1.32
FM-252	Ratio Detect.	10.7 MC.	1 1/16	1⅛ x 1⅛ x 2⅛	A	1.32
FM-253	Disc.—Min.	10.7 MC.	Clip	¾ x ¾ x 2	K	1.65
FM-254	Amp.—Min.	10.7 MC.	Clip	¾ x ¾ x 2	K	2.00
FM-255	Ratio Det.—Min.	10.7 MC.	Clip	¾ x ¾ x 2	K	2.00

ANTENNA—OSCILLATORS—RF COILS—Slug Tuned

FM-280	Antenna	88-108 MC.	1⅛	1⅛ x 1⅛ x 2⅜	A	$1.32
FM-281	RF	88-108 MC.	1⅛	1⅛ x 1⅛ x 2⅜	A	1.32
FM-282	Osc.	88-108 MC.	1⅛	1⅛ x 1⅛ x 2⅜	A	1.32

BROADCAST—IF TRANSFORMERS—(Capacity Tuned)—Mtg. I

Merit No.	Function	Freq.	Mtg. Ctrs.	Dimensions	Net Each
BC-300	Input	175 KC	1⅜	1⅜x1⅜x2⅝	$1.50
BC-301	Interstage	175 KC	1⅜	1⅜x1⅜x2⅝	1.50
BC-302	Full Wave Out.	175 KC	1⅜	1⅜x1⅜x2⅝	1.50
BC-303	Half Wave Out.	175 KC	1⅜	1⅜x1⅜x2⅝	1.50
BC-304	Input	262 KC	1⅜	1⅜x1⅜x2⅝	1.32
BC-305	Interstage	262 KC	1⅜	1⅜x1⅜x2⅝	1.32
BC-306	Full Wave Out.	262 KC	1⅜	1⅜x1⅜x2⅝	1.32
BC-307	Half Wave Out.	262 KC	1⅜	1⅜x1⅜x2⅝	1.32
BC-308	Input	455 KC	1⅜	1⅜x1⅜x2⅝	
BC-309	Interstage	455 KC	1⅜	1⅜x1⅜x2⅝	
BC-310	Full Wave Out.	455 KC	1⅜	1⅜x1⅜x2⅝	
BC-311	Half Wave Out.	455 KC	1⅜	1⅜x1⅜x2⅝	
BC-312	Input	1500 KC	1⅜	1⅜x1⅜x2⅝	
BC-313	Interstage	1500 KC	1⅜	1⅜x1⅜x2⅝	
BC-314	Full Wave Out.	1500 KC	1⅜	1⅜x1⅜x2⅝	1.32
BC-315	Half Wave Out.	1500 KC	1⅜	1⅜x1⅜x2⅝	1.32
BC-330*	Input	175 KC	1⅜	1⅜x1⅜x3¼	2.00
BC-331*	Interstage	175 KC	1⅜	1⅜x1⅜x3¼	2.00
BC-332*	Full Wave Out.	175 KC	1⅜	1⅜x1⅜x3¼	2.00
BC-333*	Half Wave Out.	175 KC	1⅜	1⅜x1⅜x3¼	2.00
BC-334*	Input	262 KC	1⅜	1⅜x1⅜x3¼	1.65
BC-335*	Interstage	262 KC	1⅜	1⅜x1⅜x3¼	
BC-336*	Full Wave Out.	262 KC	1⅜	1⅜x1⅜x3¼	
BC-337*	Half Wave Out.	262 KC	1⅜	1⅜x1⅜x3¼	
BC-338*	Input	455 KC	1⅜	1⅜x1⅜x3¼	
BC-339*	Interstage	455 KC	1⅜	1⅜x1⅜x3¼	
BC-340*	Half Wave Out.	455 KC	1⅜	1⅜x1⅜x3¼	
BC-341*	Full Wave Out.	455 KC	1⅜	1⅜x1⅜x3¼	

*Iron Core, Capacity Tuned.

MIDGET IF TRANSFORMERS—(Capacity Tuned)—Mtg. I

Merit No.	Function	Freq.	Mtg. Ctrs.	Dimensions	Net Each
BC-360	Input	175 KC	1⅛	1⅛x1⅛x2	$1.32
BC-361	Interstage	175 KC	1⅛	1⅛x1⅛x2	1.32
BC-362	Full Wave Out.	175 KC	1⅛	1⅛x1⅛x2	1.32
BC-363	Half Wave Out.	175 KC	1⅛	1⅛x1⅛x2	1.32
BC-364	Input	262 KC	1⅛	1⅛x1⅛x2	1.18
BC-365	Interstage	262 KC	1⅛	1⅛x1⅛x2	1.18
BC-366	Full Wave Out.	262 KC	1⅛	1⅛x1⅛x2	1.18
BC-367	Half Wave Out.	262 KC	1⅛	1⅛x1⅛x2	
BC-368	Input	455 KC	1⅛	1⅛x1⅛x2	
BC-369	Interstage	455 KC	1⅛	1⅛x1⅛x2	
BC-370	Full Wave Out.	455 KC	1⅛	1⅛x1⅛x2	
BC-371	Half Wave Out.	455 KC	1⅛	1⅛x1⅛x2	
BC-372	Output*	262 KC	1⅛	1⅛x1¼x2	

*Includes Output filter.

MINIATURE IF TRANSFORMERS—(Perm. Tuned)—Mtg. K

Merit No.	Function	Freq.	Mtg. Ctrs.	Dimensions	Net Each
BC-350	Input	262 KC	¾	¾x¾x2	$1.65
BC-351	Output	262 KC	¾	¾x¾x2	1.65
BC-352	Input	455 KC	¾	¾x¾x2	1.44
BC-353	Output	455 KC	¾	¾x¾x2	1.44
BC-354	Output*	262 KC	Clip	¾x¾x2	1.59
BC-355	Output*	455 KC	Clip	¾x¾x2	1.41

*Includes Output filter.

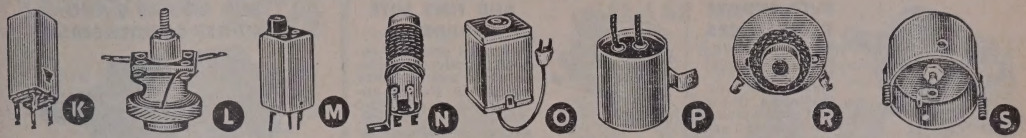
SPECIAL IF TRANSFORMERS—(Mtg. A)

Merit No.	Function	Freq.	Mtg. Ctrs.	Dimensions	Net Each
BC-375	Cartwheel	455 KC	**	1⅜x1½	$1.18
BC-376	Tweet Filter	455 KC	***	1⅜x1⅜x2½	1.65
BC-377	AM-FM	*	****	1 7/16x1 7/16x2½	2.85

*455 KC-10.7 Mc. **6-32 Screw. ***1⅜ Mtg. Ctr. ****1 7/16 Mtg. Ctr.

440-54A

Merit IF-RF Coils



RF—ANTENNA—OSCILLATOR—Permeability Tuned, Universal Replacement

Merit No.	Description	Mtg.	Cond. Max.	Dimensions	Mtg.	Net Each
BC-380	Antenna	L Bracket	250-450-MMF	⅞ Dia. x 2	B	$1.32
BC-381	Oscillator*	L Bracket	250-450-MMF	⅞ Dia. x 2	B	1.32
BC-382	RF	L Bracket	250-450-MMF	⅞ Dia. x 2	B	1.32
BC-383	Antenna (Shielded)	1⅜ Centers	250-450-MMF	1⅜ x 1⅜ x 2½	A	1.65
BC-384	Oscillator* (Shielded)	1⅜ Centers	250-450-MMF	1⅜ x 1⅜ x 2½	A	1.65
BC-385	RF (Shielded)	1⅜ Centers	250-450-MMF	1⅜ x 1⅜ x 2½	A	1.65

*Used with any "IF" (100 to 550 KC). Tapped Pri. and Sec.

MINIATURE IRON CORE TYPE K

Merit No.	Description	Operating Freq. KC	Cond. Size	Dimensions	Mtg.	Net Each
BC-390	Antenna Tapped Sec.	540-1700	365 MMF	¾ x ¾ x 2	Spring Clips	$1.05
BC-391	RF	540-1700	365 MMF	¾ x ¾ x 2	Spring Clips	
BC-392	Oscillators Tapped Sec.	540-1700	365 MMF	¾ x ¾ x 2	Spring Clips	

MIDGET OSCILLATORS—Screw Mounting—(For use with 365 MMF Condenser).

Merit No.	Description	Operating Freq.	Dimensions	Mtg.	Net Each
BC-395	Oscillator	175 KC	1" Dia. x 1" High	L	69c
BC-396	Oscillator	262 KC	1" Dia. x 1" High	L	
BC-397	Oseillator	455 KC	1" Dia. x 1" High	L	
BC-398	Oscillator (Autoformer)	175 KC	1" Dia. x 1" High	L	
BC-399	Oscillator (Autoformer)	262 KC	1" Dia. x 1" High	L	
BC-400	Oscillator (Autoformer)	455 KC	1" Dia. x 1" High	L	

BEAT FREQUENCY OSCILLATORS Capacity Tuned (Mtg. M)

Merit No.	Frequency Range	IF Freq.	Dimensions	Mtg. Centers	Net Each
BC-430	165-185 KC	175 KC	1⅛ x 1⅛ x 2⅛	1⅛	$1.59
BC-431	250-275 KC	262 KC	1⅛ x 1⅛ x 2⅛	1⅛	1.50
BC-432	450-475 KC	455 KC	1⅛ x 1⅛ x 2⅛	1⅛	1.50
BC-433	500-550 KC	525 KC	1⅛ x 1⅛ x 2⅛	1⅛	1.50
BC-434	1500-1600 KC	1500 KC	1⅛ x 1⅛ x 2⅛	1⅛	1.50

TRF UNITS

Merit No.	Description	Freq. Range	Dimensions	Mtg.	Net Each
BC-410	Antenna	540-1700 KC	1⅜ Dia. x 2	N	75c
BC-411	RF	540-1700 KC	1⅜ Dia. x 2	N	75c
BC-412	Antenna	540-1700 KC	⅝ Dia. x 2⅛	N	65c
BC-413	RF	540-1700 KC	⅝ Dia. x 2⅛	N	65c
BC-414	Band—Pass	540-1700 KC	⅝ Dia. x 2⅛	N	65c
BC-415	Antenna (Shielded)	540-1700 KC	1⅜ x 1⅜ x 2½	A	81c
BC-416	RF (Shielded)	540-1700 KC	1⅜ x 1⅜ x 2½	A	81c
BC-417	Band—Pass (Shielded)	540-1700 KC	1⅜ x 1⅜ x 2½	A	81c

SPECIAL OSCILLATORS

Merit No.	Description	Freq.	Mtg. Center	Dimensions	Mtg.	Net Each
BC-460	Phono-Osc.	540-700 KC	1 7/16	1 7/16 x 1 7/16 x 2½	A	$2.00

UNSHIELDED AIR CORE* CHOKES

Merit No.	Ind., Mn.	Cur., Ma.	Ohms	Mtg.	Net Each
BC-500	.25	125	8	R	36c
BC-501	.75	125	17	R	40c
BC-502	1.50	125	21	R	40c
BC-503	2.50	125	28	R	45c
BC-504	5.0	125	41	R	45c
BC-505	7.5	125	53	R	48c
BC-506	10.0	125	64	R	50c
BC-507	12.5	125	74	R	50c
BC-508	15.0	125	83	R	54c
BC-509	20.0	125	97	R	60c
BC-510	30.0	125	120	R	62c
BC-511	60.0	100	175	R	72c
BC-512	80.0	100	230	R	88c

*Single Bolt Mtg. Dimen. 1⅛" Dia. x ⅝".

SHIELDED AIR CORE* CHOKES

BC-515	.5	125	10	S	54c
BC-516	1.0	125	17	S	54c
BC-517	2.5	125	30	S	60c
BC-518	5.0	125	49	S	60c
BC-519	7.5	125	61	S	60c
BC-520	10.0	125	75	S	65c
BC-521	25.0	125	125	S	75c
BC-522	50.0	125	186	S	96c

*1¼" Mtg. Centers, Dimen. 1¼" Dia. x 1⅛".

RF TYPE

BC-549	2.5	200	26	E	$0.54

UNSHIELDED IRON CORE* CHOKES

BC-525	.5	125	6.8	R	$0.60
BC-526	1.0	125	10.9	R	.65
BC-527	2.5	125	19.5	R	.69
BC-528	5.0	125	23.0	R	.78
BC-529	7.5	125	37.0	R	.85
BC-530	10.0	125	45.0	R	.88
BC-531	25.0	100	78.0	R	1.05
BC-532	50.0	100	130.0	R	1.18
BC-533	75.0	100	172.0	R	1.32
BC-534	100.0	100	210.0	R	1.50
BC-535	150.0	100	268.0	R	1.65

Single Bolt Mtg. Dimen. 1⅛" Dia. x ⅝".

FILAMENT CHOKES

BC-537	10.0	8	.02	E	45c

SHIELDED IRON CORE* CHOKES

Merit No.	Ind., Mn.	Cur., Ma.	Ohms	Mtg.	Net Each
BC-538	.5	125	8.6	S	$0.85
BC-539	1.0	125	11.5	S	.90
BC-540	2.5	125	22.0	S	.94
BC-541	5.0	125	31.0	S	1.02
BC-542	7.5	125	42.0	S	1.05
BC-543	10.0	125	47.0	S	1.08
BC-544	25.0	125	100.0	S	1.30
BC-545	50.0†	100	160.0	S	1.38
BC-546	75.0†	100	222.0	S	1.55
BC-547	100.0†	100	348.0	S	1.70
BC-548	150.0†	100	520.0	S	1.90

*1¼" Mtg. Centers, Dimen. 1¼" Dia. x 1⅛".
†1⅝" Mtg. Ctrs., Dimen. 1⅝" Dia. x 1⅛".

FILTERS

Merit No.	Volts	Watts	Dimensions	Mtg.	Net Each
BC-450*	115	550	2¼ x 2¼ x 4	O	$4.60
BC-451†	220	20	1¼ Dia. x 1½	P	1.00
BC-452†	220	40	1¼ Dia. x 1½	P	1.00
BC-453†	220	80	1¼ Dia. x 1½	P	1.00
BC-454†	220	160	1¼ Dia. x 1½	P	1.00
BC-455**	115	150	2¼ x 2¼ x 4	O	4.60

*Appliance Type. †Flourescent Light. **All-Wave Filter.

SHORT WAVE IF TRANSFORMERS—Freq. 1400-1600

Merit No	Description	Mtg. Ctr	Mtg.	Dimensions	Net Ea.
SW-600	Input	1⅜	I	1⅜ x 1⅜ x 2⅝	$1.44
SW-601	Interstage	1⅜	I	1⅜ x 1⅜ x 2⅝	1.44
SW-602	Interstage*	¾	K	¾ x ¾ x 2	1.50
SW-603	Output*	¾	K	¾ x ¾ x 2	1.50
SW-604	Input†	1⅛	I	1⅛ x 1⅛ x 2	1.59
SW-605	Interstage†	1⅛	I	1⅛ x 1⅛ x 2	1.59
SW-606	Full Wave Out.	1⅛	I	1⅛ x 1⅛ x 2	1.59
SW-607	Half Wave Out.	1⅛	I	1⅛ x 1⅛ x 2	1.59

*Miniature. †Midget.

SHORT WAVE CHOKES*

Merit No.	Ohms	Microhenries	M.A.	Mtg.	Net Each
SW-630	.07	2.5	200	P	42c
SW-631	.25	5.0	200	P	

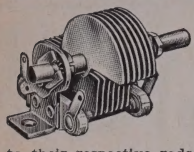
*Dimensions ¼ dia. x 1½.

RF—ANTENNA—OSCILLATORS Miniature Type, Mtg. K

Merit No	Descript.	Frequency	Mtg.	Dimen.	Net Each
SW-620	Antenna	2.1-6.3 MC	Clip	¾ x ¾ x 2	$1.05
SW-621	RF	2.1-6.3 MC	Clip	¾ x ¾ x 2	
SW-622	Oscillator*	2.1-6.3 MC	Clip	¾ x ¾ x 2	

*1600 MMF Series Pad.

Variable Condensers by BUD



BUD MIDGET CONDENSERS

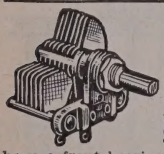
Small, sturdy, high mechanical and electrical efficiency. Steatite insulation. Rotor and stator plates are brass and are electro-soldered to their respective rods. Both front and rear bearings. Furnished in either mid-line (straight line wave length), or semi-circular (straight line capacity) plates.

SEMI-CIRCULAR TYPE DOUBLE BEARING

Bud No.	Cap. in MMFD Max.	Cap. in MMFD Min.	Air Gap	Net Each
MC-1850	15	3	.024″	$1.65
MC-1852	33	4	.024″	1.65
MC-1853	50	5	.024″	1.92
MC-1855	100	7	.024″	2.10
MC-1856	140	7	.024″	2.43
MC-1858	190	9	.024″	2.58
MC-1859	235	10	.024″	2.97
MC-1860	300	12	.024″	3.18
MC-1861	15	4	.060″	1.86
MC-1862	35	5	.060″	2.10
MC-1863	50	7	.060″	2.31
MC-1864	75	9	.060″	2.70
MC-1865	100	12	.060″	2.94
MC-1866	35	8	.095″	2.43
MC-1867	50	10	.095″	2.76
MC-1868	75	13	.095″	3.18

MID-LINE TYPE DOUBLE BEARING

Bud No.	Cap. in MMFD Max.	Cap. in MMFD Min.	Air Gap	Net Each
MC-900	25	4	.024″	$1.87
MC-902	35	5	.024″	1.92
MC-903	50	6	.024″	2.01
MC-904	75	7	.024″	2.10
MC-905	100	7	.024″	2.28
MC-906	140	7	.024″	2.61
MC-908	190	9	.024″	2.73
MC-909	250	11	.024″	2.97
MC-910	300	13	.024″	3.33
MC-565	15	4	.060″	2.10
MC-897	35	6	.060″	2.40
MC-898	50	7	.060″	2.76
MC-899	75	8	.060″	3.15
MC-941	100	11	.060″	3.00
MC-965	35	8	.095″	2.49
MC-966	50	12	.095″	2.70
MC-967	75	14	.095″	3.18



BUD SINGLE BEARING MIDGET CONDENSERS

Construction is identical to the Midget condensers described. These condensers have a front bearing only.

SEMI-CIRCULAR TYPE SINGLE BEARING

Bud No.	Capacity* Max.	Capacity* Min.	Air Gap	Net Each
MC1870	15	3	.024″	$1.26
MC1872	33	4	.024″	1.41
MC1873	50	5	.024″	1.50
MC1875	100	7	.024″	1.65
MC1876	140	8	.024″	1.83
MC1877	5	2	.060″	1.53
MC1879	15	4	.060″	1.65
MC1880	35	5	.060″	1.74
MC1881	50	7	.060″	1.86

*In μμf.

MID-LINE TYPE—SINGLE BEARING

Bud No.	Capacity* Max.	Capacity* Min.	Air Gap	Net Each
MC-324	10	2	.024″	$1.50
MC-323	25	4	.024″	1.62
MC-148	50	5	.024″	1.86
MC-901	75	6	.024″	1.95
MC-321	100	6	.024″	2.13
MC-396	140	7	.024″	2.25
MC-327	5	2	.060″	1.53
MC-311	15	4	.060″	1.62
MC-319	35	6	.060″	1.95
MC-312	50	7	.060″	2.22

*In μμf.

BUD TINY MITE PADDERS

Maintain constant capacity under all temperature and humidity conditions. For IF applications, fixed tuned circuits for exciters, ganged condenser air trimmers, and plug-in coil padding. Rotor and stator of brass plate (0.015″ thick). Fit inside standard 1½″ diameter coil forms. Insulation is steatite. May be adjusted in capacity by either a screw-driver or a ¼″ hex. wrench.

Bud No.	Max. Cap.*	Min. Cap.	Air Gap	Net Each
LC-2076	15	2	.017″	$1.32
LC-2077	25	2.5	.017″	1.56
LC-2078	35	3	.017″	1.74
LC-2079	50	3.9	.017″	1.92
LC-2080	75	4.5	.017″	2.28
LC-2081	100	5.5	.017″	2.64
LC-2082	140	6.5	.017″	3.21

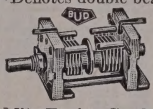
*In μμf.

BUD TINY MITE TUNING CONDENSERS SINGLE SECTION

Designed for applications where space or weight are limiting factors and for tuning of UHF circuits. Rigid construction, close fitting bearing, positive rotor contact and Steatite insulation.

Bud No.	Max. Cap.†	Min. Cap.	Air Gap	Net Each
LC-1640	8	2.5	.017″	$1.41
LC-1641	15	3	.017″	1.47
LC-1642	25	4	.017″	1.77
LC-1643	35	5	.017″	1.77
LC-1644	50	6	.017″	1.86
LC-1645	75	7	.017″	2.07
LC-1646	100	9	.017″	2.19
LC-1648	10	4	.037″	1.62
LC-1649	15	5	.037″	1.62
LC-1650	25	5.5	.037″	1.92
LC-1651	35	6	.037″	2.10
LC1652*	50	8	.037″	3.00
LC-1653	6	3.5	.073″	1.68
LC-1654	15	5.5	.073″	2.10
LC1655*	25	9	.073″	3.00

*Denotes double bearing. †In μμf.



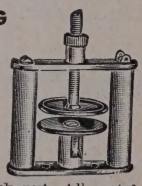
BUD TINY MITE DUAL CONDENSERS

Construction similar to the regular Tiny Mite Tuning Condensers. End pieces held firmly with two tie-rods. Separate round plate soldered on rotor rod to shield two stator sections. Large surface front-sleeve bearing, and ball and cup rear bearing for smooth rotation.

Bud No.	Cap. per Sec. Max.*	Cap. per Sec. Min. Mmfd	Air Gap In.	Over. Lgth. In.	Net Each
LC-1659	8	2.5	.017	1 15/16	$2.64
LC-1660	15	3	.017	2 1/16	2.94
LC-1661	25	4	.017	2 11/32	3.24
LC-1662	50	6	.017	3 1/32	3.63
LC-1663	100	9	.017	4 1/4	4.02
LC-1664	10	4	.037	2 15/32	2.94
LC-1665	15	5	037	2 15/16	3.57
LC-1666	25	5.5	.037	3 7/8	3.93
LC-1667	35	6	.037	4	3.93

*In μμf.

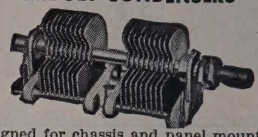
BUD NEUTRALIZING AND H. F. CONDENSERS



Will fill every neutralizing and HF tuning requirement. Two pillar construction eliminates capacity changes due to vibration. Movable plate adjusted by means of threaded shaft. Permanently locked by lock nut. All metal parts of aluminum. Steatite insulation.

Bud No.	Plate Diam.	MMFD Cap. Max.	MMFD Cap. Min.	Net Each
NC-1000	1 27/32″	11	1	$2.58
NC-1001	2 13/16″	24	2	3.75
NC-1002	4 3/4″	27	6	5.25

BUD DOUBLE GANG MIDGET CONDENSERS



Designed for chassis and panel mounting Construction identical with other midgets.

MID-LINE PLATE TYPE (STRAIGHT LINE WAVE LENGTH)

Bud No.	Cap. Per Section* Max.	Cap. Per Section* Min.	Air Gap In.	Ov. Lg. In.	Net Ea.
MC-929A	50	5	.024	3 7/32	$3.27
MC-911A	100	6	.024	4	3.69
MC-912A	140	7	.024	4 3/8	3.99
MC-942A	20	4	.060	3 25/32	3.30
MC-913A	35	5	.060	4 15/32	3.78
MC-330A	50	7	.060	5 5/32	4.23
MC-331A	75	8	.060	6 1/2	4.41
MC-329A	35	9	.095	6 11/32	4.41

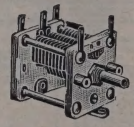
SEMI-CIRCULAR PLATE TYPE (STRAIGHT LINE CAPACITY)

Bud No.	Cap. Per Section* Max.	Cap. Per Section* Min.	Air Gap In.	Ov. Lg. In.	Net Ea.
MC-1883A	50	5	.024	3 7/32	$3.15
MC-1882A	100	7	.024	4	3.51
MC-1884A	20	4	.060	3 25/32	3.33
MC-1885A	35	5	.060	4 15/32	3.57
MC-1887A	50	7	.060	5 5/32	3.99
MC-1888A	75	8	.060	6 1/2	4.14

THREE-GANG TINY MITE

Bud No.	Cap. Per Sec. Max.	Cap. Per Sec. Min.	Plates Per Section	Net Each
LC1845	11	5	3	$4.38
LC1846	17	5	4	4.98
LC1847	25	6	5	5.40

BUD "CE" MIDGET CONDENSERS SINGLE SECT'N DOUBLE BEARING



To meet UHF and laboratory equipment use. Brass rotor and stator stacks electro soldered. End plates of steatite insulate mounting from rotor and stator assembly. Special wiper contact for noise-free tuning. All metal cadmium plated. Either panel or base mounting.

Bud No.	Max. Cap.*	Min. Cap.*	Air Gap	Over. Lgt.	Net Ea.
CE-2000	15	4	.030″	2 1/8″	$2.19
CE-2001	35	6	.030″	2 23/32″	2.43
CE-2002	50	7	.030″	2 27/32″	2.76
CE-2003	75	8	.030″	3 5/32″	3.03
CE-2004	100	9	.030″	3 11/32″	3.30
CE-2005	150	10	.030″	3 13/16″	3.53
CE-2006	200	11	.030″	4 1/4″	4.20
CE-2007	250	12	.030″	4 3/4″	4.44
CE-2008	300	15	.030″	5 5/16″	4.65
CE-2011	15	5	.060″	2 3/4″	2.28
CE-2012	35	7	.060″	3 1/4″	2.55
CE-2013	50	8	.060″	3 9/16″	2.97
CE-2014	75	10	.060″	3 1/4″	3.45
CE-2015	100	13	.060″	4 9/16″	3.99
CE-2016	35	9	.095″	4 1/16″	3.09
CE-2017	50	10	.095″	5 1/16″	3.42
CE-2018	75	14	.095″	6 7/32″	4.02

BUD "CE" TYPE DUAL MIDGET CONDENSERS

Nos. CE-2032 to CE-2036 air gap .030″.
Nos. CE-2039 to CE-2041 air gap .060″.

Bud No.	Per Section Max. Cap.*	Per Section Min. Cap.	Dist. Beh'd Panel	Net Each
CE-2032	35	6	3 1/32″	$3.27
CE-2033	50	7	3 1/4″	3.60
CE-2034	75	8	3 21/32″	3.99
CE-2035	100	9	4 3/32″	4.59
CE-2036	150	10	5 3/16″	5.28
CE-2039	15	5	3 1/32″	3.78
CE-2040	35	7	4 1/32″	4.35
CE-2041	50	8	4 23/32″	4.77

*In μμf.

TV, Radio, Test Equipment Knobs

RADIO KNOBS BY G-C

G-C SPRING SHAFT KNOB

Spring type. 15/16" diameter. Fits 1/4" flat shaft.
No. 1151. Walnut. Net Each.....9c
No. 1152. Ivory. Net Each.....12c

G-C POPULAR LARGE KNOB

Knurl shaft or set screw types. 1 3/16" diameter.
KNURL SHAFT TYPE
GC No. 1180. Walnut Net... 10c
SET SCREW TYPE
GC No. 1181. Walnut. Net Each.... 11c

G-C MIDGET BAKELITE KNOBS

Set screw types for small sets. 11/16" diameter, 1/4" shaft.

Pointer GC No.	Non-Pointer GC No.	Color	Net Each
1115	1111	Walnut	8c
1116	1112	Ivory	10c
1117	1113	Red	10c
1118	1114	Black	8c

G-C MODERN LARGE KNOB

Knurl shaft or set screw types. 1 1/16" diameter.
KNURL SHAFT TYPE
GC No. 1176. Walnut Net... 10c
SET SCREW TYPE
GC No. 1177. Walnut Net... 11c

G-C INSTRUMENT KNOB

1/4" brass insert. Set Screw 1 3/4" O.D. x 5/8". Black.
GC No. 1175.
Net Each 33c

G-C MIDGET TYPE PLASTIC KNOB

29/32" diameter for 1/4" knurled knobs. Flush and 1/2" shank types.
WITH 1/2" SHANK
No. 1197. Walnut. Net Each.....8c
No. 1198. Ivory. Net Each.....9c
FLUSH TYPE
No. 1193. Walnut. Net Each.....8c
No. 1194. Ivory. Net Each.....9c

G-C STREAMLINE POINTER

1/4" shaft, set screw type 1 1/4" long.
GC No. 1136— Black. Net Each.... 10c
GC No. 1136-W—Walnut. Net Ea.. 11c
GC No. 1137—Red. Net Each..... 12c
GC No. 1137-I—Ivory. Net Each... 13c
With Brass Bushing
GC No. 1170—Black. Net Each.... 17c
GC No. 1170-W—Walnut. Net Ea... 17c
GC No. 1172R—Red. Net Each.... 20c
GC No. 1172-I—Ivory. Net Each... 18c

G-C POINTER BAR KNOBS

Set screws, 1/4" shaft, 2 3/4" long. Metal pointer can be removed.
GC No. 1130—Black. Net Each.....28c
GC No. 1130-W — Walnut, Net Each.....28c

G-C PLASTIC KNOB

15/16" diameter with 1/2" shank extension for 1/4" knurled shaft.
GC No. 1153
Walnut—Net.....8c
GC No. 1154
Ivory—Net.....9c

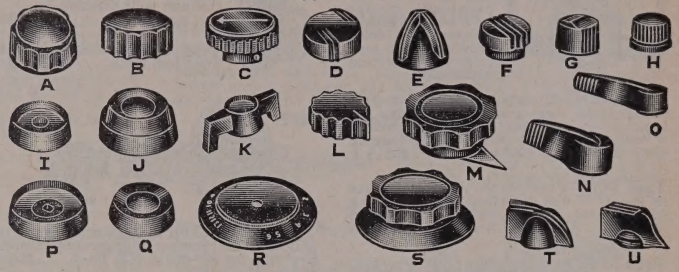
G-C MIDGET PLASTIC KNOB

3/4" diameter with 3/8" shank ext. for 1/4" knurled shafts.

GC. No.	Net
1157—Walnut	8c
1158—Ivory	9c

GEE-LAR KNOBS

Gee-Lar knobs are made either of Tenite or Bakelite. They are available in walnut ivory, black, red, or green—determined by **"W," "I," "B," "R"** and **"G"** respectively as shown below. No suffix after part number indicates knurl type fitting. **"S"** indicates spring type; **"SS"** indicates set screw type.



G-L No.	Type	Color	Size, In.	Net Each
480SS	A	W, I	1 1/16	12c
10	B	W, I	1 1/8	8c
10S	B	W, I	1 1/8	9c
10SS	B	W, I	1 1/8	10c
533SS	C	B	1 3/4	23c
180	D	W, I	15/16	8c
360	E	W, B, I	3/8	8c
360S	E	W, B, I	3/4	8c
360SS	E	W, B, I	3/4	9c
370	E	W, B, I	7/8	9c
370S	E	W, B, I	7/8	9c
370SS	E	W, B, I	7/8	11c
531SS	F	W, I	7/8	12c
170SS	H	W, B, R, I	11/16	10c
860	L	W, I	1	8c
860SS	L	W, I	1	10c
980SS	N	B, W	1 5/8	12c
970SS	O	B, W	2 1/2	17c
970ASS*	O	B, W	2 1/2	23c
1000SS	T	B, W, R, I	1 1/4	13c

*Brass insert.

GEE-LAR TELEVISION KNOBS

Front Dual Control Knob (Fig. P)—1 5/8" O. D. Plated gold finish inlay. Used with rear knob No. 1205 and others.
G-L No. 1202—Fits 1/4" knurl shaft. Net Each..... **27c**
G-L No. 1203—Fits 1/4" flatted shaft. Net Each..... **30c**
G-L No. 1204—Fits .202" flatted shaft. Net Each..... **30c**

Rear Dual Control Knob (Fig. O)—1 5/8" dia. For standard .265" diameter rear keyway shaft. As mate to front dual control knobs.
G-L No. 1205—Rear Knob. Net Each..... **17c**

Combination Dual Knob (Fig. J)—Dummy type control knob. For matching on cabinet. 1 5/8" dia. Fits 1/4" flatted shaft. Plated gold finish inlay.
G-L No. 1206—Net Each..... **45c**

G-L Dual Tuner Bar Knob (Fig. K). 2" length. Plated gold finish inlay. Can be used with knob 1208. Fits 1/4" dia. flat shaft.
G-L No. 1207—Bar Knob. Net Ea. **54c**

Rear Dual Tuner Knob (Fig. I). 1 1/16" diam. For standard 3/8" diam. rear flat shaft.
G-L No. 1208—Rear dual knob. Net Each..... **17c**

Channel Indicator Plate (Fig. Q). Walnut pattern, gold letters. Matches knobs listed above. Fits standard 3/8" rear flat shaft.
G-L No. 1209—Net Each..... **45c**

GEE-LAR INSTRUMENT KNOBS

G-L No. 580SS (Fig. M). Diameter 1 1/8", height 5/8", pointer 3/4". Net Each..... **42c**
(Available with 1 1/16", 1 3/16" & 1 9/16" pointers.)

G-L No. 620SS (Fig. S). Diameter 1 1/8", height 13/16", skirt 1 1/2". Net Each..... **43c**
Also available with 2 1/16" and 3" skirts.

GEE-LAR KNOB ASSORTMENTS

A variety of types for 1/4" shafts, consisting of new designs and standard models for replacement.

Assortment "A"—Contents: 36 assorted KNURLED type.

Assortment "B"—Contents: 30 assorted SPRING type.

Assortment "C"—Contents: 26 assorted set screw type.

Assortment "D"—Contents: 12 assorted auto radio type with brass bushings and reducing bushings for 3/16" shaft.

Assortment "E"—Contents: 30 assorted as follows: 10 SET SCREW, 10 SPRING, 10 KNURLED types.

Assortment "F"—Contents: 50 assorted push buttons.

Assortment "H"—Contents: 24 assorted pointer and BAR SET SCREW KNOBS.

Any Assortment — Net Each..... **$2.61**

G-C ROYAL BAKELITE KNOBS

Beautiful pattern. Set screw type. 7/8" dia., 1/4" shaft.
GC No. 1105—Walnut. Net Each.... 14c
GC No. 1105-I—Ivory. Net Each.... 14c

G-C YANKEE BAKELITE KNOBS

Set Screw type. 3/4" and 1" dia., 1/4" shaft.

GC No.	Net Each
1109—3/4" Walnut	14c
1110—1" Walnut	14c
1109-I—3/4" Ivory	16c
1110-I—1" Ivory	16c

G-C MAJESTIC BAKELITE KNOBS

Set screw type, 7/8" dia., 1/4" shaft.
GC No. 1100
Walnut—Net..... 14c
GC No. 1100-I
Ivory—Net..... 14c

G-C TV KNOBS TO FIT RCA AND OTHER SETS

Front Dual Bar Pointer Channel Knob. Push on type to fit standard 1/4" shaft flatted to .156". Complete with spring. Flat adjacent to pointer.
G-C No. 8861 Knob—Net Each... **30c**

Rear Channel Knob. For No. 8861 above. Push on type to fit 3/8" shaft flatted to .327". Complete with spring.
G-C No. 8862 Knob—Net Each... **27c**

Front Knob "Off-On-Volume". Push on type to fit 5/16" shaft flatted to .156". Complete with spring.
G-C No. 8863 Knob—Net Each... **15c**

Rear Knob. For No. 8863 above. Push on type to fit 17/64" shaft flatted to .237". Complete with spring.
G-C No. 8864 Knob—Net Each... **27c**

TV Knob Set. Complete set of one each of above boxed. Color brown only.
G-C No. 8860 Complete Set— Net Each..... **99c**

Dials, Knobs, and Accessories

NATIONAL DIALS AND KNOBS

Employ 5:1 drive ratio Velvet Vernier mechanism. Long famous for their precision. Scales have numerical calibrations, and blank semi-circular portions for individual calibration.

Type MCN—Especially suited to mobile installations and small units. May be mounted on 3½" rack panel. Dial provides 3 calibrating scales and a 0-100 logging scale 2¾" high x 3⅞" wide. Net.. **$3.11**

Type SCN—Provides the same dial scales as the ACN dial described below but in a reduced size. For restricted panel space. 4⅛" high x 6¼" wide. Net Each.. **$3.45**

Type ACN is the original of this type dial, a National design for the benefit of experimenters and others who desire direct calibration. 5 blank and one 0-100 scales. 5" high x 7¼" wide Net Each... **$3.80**

Type ICN is the illuminated version of the ACN dial. Two dial lights mounted on the top corners provide efficient and even illumination on all bands. Window blanked in semi-circular shape to prevent shadows. 5⅛" high x 7¼" wide. Net Each.. **$6.90**

CONTROL KNOBS

Type HRS-3 — Knob 0-10 through 300° rotation. Net Each..... **58c**

Type HRS-4—Single etched line. Net Each..... **58c**

HRT HR HRB

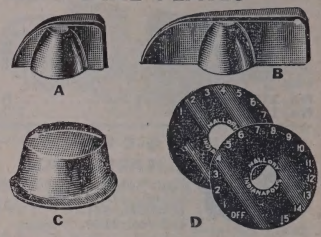
Type HRT—Knob in light gray or black plastic with chrome appearance circle. 2⅛" dia. for ¼" shaft. Net Each.... **86c**

Type HR Knob—Furnished in gray or black. An HRS type knob without the chrome plated skirt but with a white dot. Net Each..... **35c**

Type HRB Lever Knob—For applications where a switch is turned to several index positions Bright zinc alloy. Net Each **52c**

Type HRT-M—Knob A smaller version of the HRT originally designed for use on the NC-57 receiver Available in gray or black. 1 1/16" dia. Net Each..... **58c**

MALLORY KNOBS AND DIAL PLATES



ROUND AND BAR KNOBS

Mall. No.	Fig.	Description	Net
364	C	1 1/16" dia. round, black	9c
365-1	B	2¼" bar knob, black	15c
366-1	A	1¼" bar knob, black	12c
366-R-1	A	1¼" bar knob, red.	
367-1	C	1½" dia. round, black.	15c
368-1	C	1⅜" dia. round, black.	12c

DIAL PLATES

(Fig. D). Aluminum dial plates with figures etched on solid black background. 1 13/16" dia. 1/16" hole, figures .020" thick, 7/16" high.

Mallory No. -20° Spacing	Mallory No. -30° Spacing	Marking	Net Each
	372	1 to 2	
453	373	1 to 3	
454	374	1 to 4	
455	375	1 to 5	
456	376	1 to 6	
457	377	1 to 7	
458	378	1 to 8	
459	379	1 to 9	
460	380	1 to 10	
461	381	1 to 11	
462	382	1 to 12	
463		1 to 13	
464		1 to 14	
465		1 to 15	
466		1 to 16	
467		1 to 17	12c
468		1 to 18	
472		Off 1 to 2	
473	383	Off 1 to 3	
474	384	Off 1 to 4	
475	385	Off 1 to 5	
476	386	Off 1 to 6	
477	387	Off 1 to 7	
478	388	Off 1 to 8	
479	389	Off 1 to 9	
480	390	Off 1 to 10	
481		Off 1 to 11	
482		Off 1 to 12	
483		Off 1 to 13	
484		Off 1 to 14	
485		Off 1 to 15	
486		Off 1 to 16	
	*394 Special	1 to 24	
	†487 Special	1 to 5	
	‡488 Special	1 to 4	

*15° Spacing Between Numerals.
†60° Spacing Between Numerals.
‡90° Spacing Between Numerals.

G-C DIAL CORD AND ACCESSORIES

New Plastic Containers. All G-C Dial Cables are now packaged in our new attractive plastic container When cord has been used makes an ideal container for parts, screws, etc.

G-C NO. 75 STANDARD THIN NYLON CORD

.028" diam. Most popular. Used on 95% of sets. Braided nylon over fibreglass core. In plastic container.

G-C No.	Spool	Net Each
75- 25	25 ft.	$0.84
75- 50	50 ft.	1.59
75-100	100 ft.	2.97
75- 11	Env.	.27

G-C NO. 75-A EXTRA THIN NYLON CORD

.025" diam. Used on RCA, GE, Stromberg-Carlson, etc. Braided nylon over fibreglass core. In plastic container.

No.	Spool	Net Each
75A- 25	25 ft.	$0.84
75A- 50	50 ft.	1.59
75A-100	100 ft.	2.97
75A- 11	Env.	.27

G-C NO.74 MEDIUM NYLON CORD

.040" diam. Very popular. Used by RCA, Philco, GE, etc. Braided nylon over fibreglass core. With plastic container.

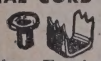
No.	Spool	Net Each
74- 25	25 ft.	$0.84
74- 50	50 ft.	1.59
74-100	100 ft.	2.97
74- 11	Env.	.27

G-C NO. 73 HEAVY NYLON CORD

.062" diam. Used on Philco, Majestic, Brunswick, etc. Very strong. Treated to prevent slipping. In plastic container.

No.	Spool	Net Each
73- 25	25 ft.	$1.14
73- 50	50 ft.	1.95
73-100	100 ft.	3.30
73- 11	Env.	.27

DIAL CORD CLIPS AND SPRINGS



Clips—Envelope assorted eyelets and clips for fastening dial cords, etc. Required on every set.
G-C No. 1028-E—Net Each..... **27c**

Springs—Handy assorted springs as used on dial cord drives. Six sizes included.
G-C No. 1054-E—10 Assorted.
G-C No. 1054-SE—10 small springs. Net Each..... **27c**

G-C NON-SLIP DIAL DRESSING

Powder Compound—Apply dry, for dials, belts, cords, pulleys. Prevents slipping.
G-C No. 1210—2 oz. bottle. Net Each..... **33c**

Liquid Type penetrates and shrinks fibers, tightens cords. Prevents slipping on dial cords and belts. 2 oz. bottle.
G-C No. 1215— Net Each..... **39c**

G-C CORD DRESSING

Easy to apply. Just rub stick on cord. Prevents and stops slipping.
G-C No. 1212—Net Each..... **15c**

G-C NO. 76 SPECIAL THIN BRONZE CABLE

.025" diam. Braided bronze as used on GE, RCA, etc. Also use for flexible connections on speaker cones, etc. In plastic container.

No.	Spool	Net Each
76- 25	25 ft.	$0.84
76- 50	50 ft.	1.59
76-100	100 ft.	2.97
76- 11	Env.	.27

BRAIDED BRONZE CABLE

G-C No. 70-25—.040" dia. Over fiber-glass core. 25 ft. roll. Net Each..... **78c**

G-C No. 71-25—.040" dia. 42-strand twisted phosphor bronze over fibre glass. 25 ft. roll. Net Each..... **99c**

ICA FINGER GRIP POINTER KNOBS

Z

Y

Molded black bakelite with ¼" hole. Type Z has white indicator. Type Y has white line. With ¼" brass inserts.

ICA No.	Figure	In.	Net Each
1166	Z	1⅛	40c
1168	Z	1⅝	55c
1170	Z	2⅜	70c
1165	Z	1⅛	32c
1167	Z	1⅝	38c
1169	Z	2⅜	55c
1171	Y	2-1/10	
1172	Y	3	65c

UNIVERSAL FLEXIBLE COUPLING SHAFTS

Mallory No. FS250—For universal replacement of all flexible wire shafts, coupling to ¼" solid shafts Net Each..... **45c**

Mallory No. FS251—Shaft coupling has 7/16" hole, ½" deep, with transverse pin, and is for use (with the correct control) as a replacement for Philco Models 805, 806, 809, PHD and PHDX, Studebaker AC266, Pierce-Arrow MT-3, Reo RT-3, etc. Net Each..... **45c**

Mallory No. FS252—Shaft coupling has 5/8" hole, approx. ½" deep, and has 2 set screws opposite each other. It is used as a replacement for Philco Model D, Nash AC-989 (Code 122). Net Each. **45c**

593X-55A

Clips, Plugs, Jacks, Binding Posts

MUELLER UNIVERSAL CLIPS

ALLIGATOR CLIPS

Accurately made, slim jaws, fine meshing teeth. Convenient round thumb grip, barrel connection for banana plug. 2 inches long. Strong spring with hard bite.

Mueller No. 30—Mini-Gator clip. Steel, cadmium plated. Solder connection. Length 1 1/16", Jaw spread 3/16", Shpg. Wt. 1/4 lb. 10 for.....**46c** Net Each.....**7c**

Mueller No. 30-C—Mini-Gator clip. Solid copper. Solder connection. Length 1 1/16", Jaw spread 3/16". Shpg. Wt. 1/4 lb. 10 for.....**56c** Net Each.....**8c**

Mueller No. 32—Insulator for clips No. 30 and 30-C. 10 for.....**76c** Net Each.....**11c**

Mueller No. 60—Cadmium plated steel, small soldering lip. 10 for.....**46c** Net Each.....**7c**

Mueller No. 60-S—Cadmium plated steel, screw connection. 10 for.....**53c** Net Each.....**8c**

Mueller No. 63—Above with 2-piece vinyl insulator. Net 10 for.....**$2.10** Net Each.....**30c**

Mueller No. 60-CS—Copper, screw connection, for RF circuits. 10 for.....**77c** Net Each.....**11c**

Mueller No. 63-C—Above with 2-piece vinyl insulator. Net 10 for.....**$2.30** Net Each.....**33c**

Mueller No. 60-HS—Cadmium plated steel, screw connection, insulated handle, red or black. Specify color. 2 1/4". 10 for.....**84c** Net Each.....**12c**

Mueller No. 60-CHS—Copper, screw connection, insulated handle, red or black. Specify color. 2 1/4" long. Net Ea. **16c** 10 for.....**$1.10**

CROCODILE CLIPS

Very small clip with slender, elongated jaws for getting into tight places in radio or electrical test work.

Mueller No. 85—Cadmium plated steel, 2 1/8" long, screw connection. Net Each.....**8c** 10 for.....**55c**

Mueller No. 85-C—Copper for RF work. 2 1/8" long, screw connection. Net Each.....**14c** 10 for.....**$1.00**

Mueller No. 85-T—Cadmium plated steel, 2 5/8" long, screw connection, standard phone tip on jaw (as illustrated). Net Each.....**18c** 10 for.....**$1.30**

SMALL CLIPS

Mueller No. 45—"Pee Wee" very small test clip. Cadmium plated steel, 1 1/2" long. Jaw spread 3/8". Net Each.....**7c** 10 for.....**50c**

Mueller No. 88—"Wee Pee Wee" extremely small phosphor-bronze spring tempered clip for fine testing. 1 11/16" long, spread 1/4". 10 for **$1.30.** Net Each.....**19c**

SOLID COPPER RF TEST CLIP

Mueller No. 45-C—Solid copper RF test clip. Phosphor bronze spring, brass screw. Will not heat up from RF. 1 1/2" long. Net Each **11c** 10 for.....**80c**

BATTERY CLIPS

Mueller No. 48-B—2" steel, 1/2" jaw. Net Each.....**8c** 10 for.....**55c**

Mueller No. 48-C—2" copper, 1/2" jaw. Net Each.....**13c** 10 for.....**90c**

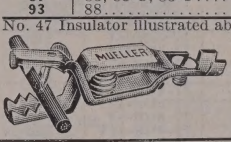
Mueller No. 27—Steel, teeth 3 sides. 2 7/16" long, 5/8" jaw. Net.....**11c** 10 for.....**80c**

Mueller No. 24-A—2 7/8" steel, 5/8" jaw. Net Each.....**16c** 10 for.....**$1.10**

FLEXIBLE VINYLITE CLIP INSULATORS

Mueller No.	For Clip Numbers	Net Each	10 For
26	24-A, 24-C	$0.25	$1.80
29	27, 27-C	.17	1.20
47	45, 45-C	.07	.50
49	48-B, 48-C	.10	.70
62	60, 60-S, 60-CS, 60-HS	.07	.50
87	85, 85-C, 85-T	.07	.50
93	88	.05	.35

No. 47 Insulator illustrated above on No. 45-C Clip.

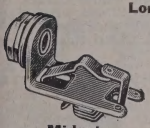


NEEDLE CLIP

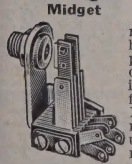
Mueller No. 50-C—Has needle in clip that pierces insulation for quick hook-up. Solid bronze. Net Each.....**$0.25** 10 for.....**1.80**

MALLORY JACKS AND PLUGS

Long Frame



Midget



Junior

Long frame jacks are mounted horizontally to frame. Junior jack is made with frame and spring stack at right angles, with short springs, requiring only 1 13/16" behind panel. Both above models mount in a single hole, in up to 5/8" thick panel. Midget jack is very compact and Infant jack is smallest made, but is for 2-way phone plug only. Midget and infant jacks mount in 3/8" hole in panel up to 1/4" thick. All jacks made with cadmium plated frames, brass bushings, nickel plated phosphor bronze springs, silver contacts. Complete with mounting nuts and washers.

Long Fr. Mal. No.	Long Fr. Net Ea.	Junior Mal. No.	Junior Net Ea.	Infant and Midget Mal. No.	Infant and Midget Net Ea.	Schem.
1	39c	701	33c	A-1	18c	
2	48c	702	45c	A-2	30c	
2A	48c	702A	45c	A-2A	33c	
2B	48c	702B	45c			
3	57c	703	51c			
3A	57c	703A	51c	A-3A	48c	
3B	57c	703B	51c			
3C	57c	703C	51c			
4	66c	704	60c			
4A	66c	704A	60c			
4B	66c	704B	60c			
5	72c	705	69c			
6	78c	706	75c			

EXTENSION JACKS

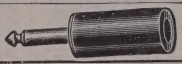
Mallory No.	Circuit	Shell	Net Each
100	2-way	Fiber	$0.78
100N	2-way	1-piece nickel	.99
100A	2-way	2-piece nickel, built in clamp	1.38

SC JACKS

Mallory No. SC-1A Phone Jack—Equivalent of Military No. JJ-034. Same spring arrangement as No. 1 Long Frame Jack. Designed to receive following plugs: Mallory No. 75; Western Electric Nos. 47A and 47B; Signal Corps Nos. PL-47, PL-48, PL-55, PL-148, PL-155. Net Each.....**33c**

Mallory No. SCA-2B—Microphone Jack. Equivalent of Military Jack No. JJ-033. Same spring arrangements as No. 2B long frame jack. Designed to receive the following plugs: Western Electric No. 109 and Signal Corps Nos. PL-46, PL-68 and PL-168. Net Each.....**39c**

PHONE PLUGS



Mal. No.	Circuit	Shell	Net Each
55	.....	Adapts mike con. to stand. jack	$0.27
75	2-way	Phenolic tie-cord anchor.	.39
75A	2-way	Nickel, 2-piece, tie-cord anchor, built-in cble. clp.	.99
75N	2-way	Nickel, tie-cord anchor	.60
76	3-way	Phenolic	.60
76A	3-way	Nickel, 2-piece, built-in cble. clp.	1.17
85	2-way	Miniature phone plug	.30

EBY BINDING POSTS

A No. 21R No. 21T

FIGURE A

Knob and base molded, knobs supplied plain or marked PLUS, MINUS, ANT, GND, at extra cost. Metal inserts are plain brass, knurled base to prevent post twisting. Hole in neck of Nos. 30, 37 and 40 is 3/32" diameter.

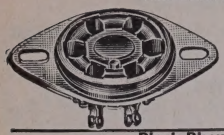
No. 21R—Insulated twin post. Both posts completely insulated. Center mounting screw, 6-32 x 1/4" long. Base is 2" long, 11/16" wide, 3/16" thick. All molded bakelite with non-removable tops, 1/2" in diameter. Center distance, 7/8" between posts. Net Each.....**51c**

No. 21T—Triple post, two posts completely insulated. All molded bakelite, non-removable, 1/2" tops. One mounting screw, 6-32 x 1/4" long. Ground post stem is second mounting screw. Base 2 3/4" long, 11/16" wide, 3/16" thick. Net Each.....**90c**

No. 30 JUNIOR: knob, 1/2" dia. x 7/16" high. Base, 1/2" dia. x 1/4" thick. Solid stem, 6-32 x 1/2" long. Drilled neck dia., 3/16". Contact flanges, 3/8". Net Each.....**21c**

No. 37 ENSIGN: knob and base are molded bakelite. Dimensions same as Model 30 except stem, 6-32 x 3/8" long Net Each.....**24c**

REPLACEMENT SOCKETS



Consists of regular "S" type sockets assembled with retainer rings in sturdy nickel plated steel mounting rings. Use these sockets to replace broken and noisy wafer types. Either black phenolic or low-loss mica-filled. Mounting plate has slotted holes to fit centers from 1½" to 1⅞".

Contacts	Black Phenolic Amphenol No.	Black Phenolic Net Each	Mica-Filled Phenolic Amphenol No.	Mica-Filled Phenolic Net Each
4	78-RS4	10c	.....	.....
5	78-RS5	11c	.....	.....
6	78-RS6	12c	.....	.....
7 Large	78-RS7L	18c	.....	.....
7 Small	78-RS7S	13c	.....	.....
8 Octal	78-RS8	12c	78-RS8T	17c
8 Loktal	78-RS8L	17c	.....	.....
9 Octal*	78-RS9	13c	.....	.....
11 Octal*	78-RS11	17c	78-RS11T	17c

*Octal style.

STEATITE REPLACEMENT SOCKETS

Rugged, adapts to any application. Assembled with retainer ring to a nickel plated steel mounting plate. Slotted mounting holes fit any centers from 1½" to 1⅞". Requires 1¼" hole.

Amph. No.	Contacts	Net Ea.	Amph. No.	Contacts	Net Ea.
49-RSS4	4	29c	49-RSS7L	7 Large	35c
49-RSS6	6	32c	49-RSS8	8 Octal	30c

MIP MOLDED-IN-PLATE SOCKETS

High dielectric black bakelite, steel mounting plate molded into solid body. Cannot come loose. Mount in 1⅝" hole. Two 5/32" holes on 1½" mounting centers, except 77-MIP7L and 77-MIP20 which mount in 1⅝" hole and Compact MIP's which mount in 1⅛" holes on 1 5/16" centers.

Contacts	Black Phenolic Amphenol No.	Black Phenolic Net Each	Mica-Filled Phenolic Amphenol No.	Mica-Filled Phenolic Net Each
4	77-MIP-4	8c	77-MIP-4T	10c
5	77-MIP-5	9c	77-MIP-5T	11c
6	77-MIP-6	11c	77-MIP-6T	13c
7 Large	77-MIP-7L	13c	77-MIP-7LT	16c
7 Small	77-MIP-7S	11c	77-MIP-7ST	14c
8 Octal	77-MIP-8	9c	77-MIP-8T	11c
9 Octal	77-MIP-9	11c	77-MIP-9T	13c
11 Octal	77-MIP-11	13c	77-MIP-11T	16c
12 Octal	77-MIP-12	15c	77-MIP-12T	17c

CONTACT MIP SOCKETS

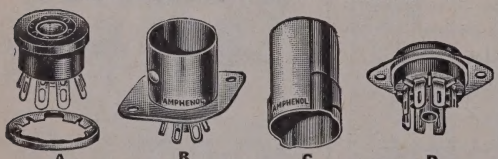
8	88-8	9c	88-8T	14c
8 Loktal	88-8X	15c	88-8XT	16c

FLOATING OCTAL SOCKET

Live rubber grommets fit into mounting holes to cushion this socket for vibration free operation. Black bakelite dielectric. Mounts in 1⅝" hole above or below chassis. Two ¼" screw holes on 1½" centers.

Amphenol No. 77-MIP-8FK—Complete with 4 rubber grommets, 2 mounting screws. Net Each.... **22c**

MINIATURE 7 AND 9 PIN SOCKETS



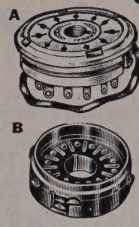
A B C D

Type A—Miniature retainer ring type sockets mount in "D" shaped or round hole. ⅝" diameter.

Types B, D—Miniature 7- and 9-pin sockets. 7-pin sockets mount in ⅝" hole; mounting centers ⅞". 9-pin sockets mount in ¾" hole; mounting centers 1⅛". Shielded sockets mount above chassis; unshielded sockets mount below.

Amphenol No.	Type	Contacts	Material	Net Each
78-7P	A	7	Bakelite	12c
147-500	D	7	Bakelite	15c
147-501	D	7	Steatite	25c
59-409	D	9	Bakelite	20c
59-410	D	9	Mica Filled	20c
147-905	B	7	Bakelite	22c
147-913	B	7	Mica Filled	22c
147-925	B	7	Steatite	27c
59-406	B	9	Bakelite	25c
59-407	B	9	Mica Filled	29c
SHIELDS WITH SPRINGS				
5-401	C	For 7	1⅜" high	7c
5-402	C	For 7	1¾" high	7c
5-405	C	For 9	1½" high	9c
5-408	C	For 9	1 15/16" high	11c
5-409	C	For 9	2⅜" high	11c

CATHODE RAY SOCKETS



A B

Amph. No.	Style	Fig.	Pins	Dimen., Inches	Net Ea.
49-SS11L	Magnal	A	11	1⅛ circle 1⅝ hole	$0.6
59-402	Duodecal	B	12	1.063 circle	.6
59-415	Diheptal	B	14	1.75 circle 2.05 dia. tube base	1.0
59-417	Diheptal	B	14	1.75 circle 2.25 dia. tube base	1.0

MINIATURE CONNECTORS

A B C D

For cables up to 6 conductors. Polarized contacts make incorrect insertions impossible. Shell length on shielded connectors 13/16". Chassis mounting receptacles mount in ⅝" hole, with ring.

Amphenol No.	Style	Contacts	Net Each
78-S3S	A	3	7c
78-S4S	A	4	7c
71-3S	B	3	6c
71-4S	B	4	8c
78-S6S	A	6	11c
71-6S	B	6	10c
91-MPM3S	D	3	23c
91-MPF3S	C	3	28c
91-MPM4S	D	4	23c
91-MPF4S	C	4	28c

PLUGS, RECEPTACLES, CONNECTORS, 110-250V

A B C D

Shielded Cable Connectors—Fig. A—End Cable Outlet for cables up to ½" dia. Fully shielded cable terminals with black bakelite connector units encased in a tight cap that fits securely and is easily removed. Available with cable clamp that relieves soldered connections of strain.

Amphenol No. 61-F11—2 Pole Universal Receptacle..... **31c**

Amphenol No. 61-M11—2 Pole Standard Plug. Net..... **34c**

2 Pole Plugs and Receptacles—Fig. B—Compact in design, molded from high dielectric black bakelite. Rated at 15 amp. 110 V. or 10 amp., 250 V. Requires 1⅝" D. chassis hole; has slotted screw holes on 1½" to 1⅞" centers.

Amphenol No. 61-F1—2 Pole Universal Receptacle. Net.. **23c**

Amphenol No. 61-M1—2 Pole Standard Plug. Net Each... **23c**

Molded-In-Plate Receptacle—Fig. C.—Same as 61-F1 Receptacle with standard steel mounting plate molded into the Bakelite body. Mounts in 1⅝" hole; two 5/32" screw holes on 1½" centers.

Amphenol No. 61-MIP-61F—2 Pole Univ. Receptacle. Net Each..... **19c**

Flush Motor Plug—Fig. D—Neat, compact plug or receptacle set in type 61-61 steel shell for below surface mounting. Room for insertion of Amphenol End Cable Outlet Plugs.

Amphenol No. 61-M10—2 Pole Standard Plug. Net Each. **29c**

SHIELDED CABLE CONNECTORS

Multi-wire cable connectors consist of "S" type sockets and "CP" type plugs in metal cap shields.

Male Amphenol No.	Female Amphenol No.	Contacts	Net Each
86-PM4	78-PF4	4	20c
86-PM5	78-PF5	5	20c
86-PM6	78-PF6	6	21c
86-PM7S	78-PF7S	7 small	21c
86-PM8	78-PF8	8 octal	20c
86-PM9	78-PF9	9 keyed	21c
86-PM11	78-PF11	11 keyed	22c

TUNING EYE ASSEMBLY

Consists of socket, internal 1 megohm resistor and 5 wire color-coded cable with 6 pin assembly, 8 wire color-coded 22" cable with octal assembly, plus mounting bracket, escutcheon and hardware.

Amphenol No. **Net Each**

58-MEA6—6 pin..... **$1.14**

58-MEA8—8 pin..... **1.56**

92-55A

AMPHENOL Cable Connectors

TYPE BNC CONNECTORS

31-008 31-002 31-005 31-009 31-003

Type BNC Connectors incorporate quick connect and disconnect plus weatherproof features. Small, lightweight, low voltage types for use with small RF cables. Not constant impedance but produce very little discontinuity with 50 ohm coaxial cable.

50 Ohm For RG-55, 58, 58A/U Cables

Amph. No.	JAN No.	Description	Net Each
31-002	UG-88/U	Weatherproof plug	$1.32
31-001	UG-291/U	Panel Jack	1.44
31-005	UG-89/U	Weatherproof Jack	1.32
31-003	UG-290/U	Receptacle	1.32
31-817	UG-447/U	Same as 31-003 except threaded	1.38
31-016	UG-254A/U	Pressurized receptacle	3.00
31-102	.....	Receptacle, pressurized bulkhead	1.74
31-008	UG-274/U	Tee Adapter	4.26
31-009	UG-306/U	Right angle adapter	2.52
31-017	CW-159/U	Shorting plug with chain	.90
31-006	CW-123/U	Cap and chain for receptacles	.54
31-007	CW-155/U	Cap, without chain	.42

70 Ohm for RG-59, 62, 71/U

31-012	UG-260/U	Weatherproof plug	$1.38
31-011	UG-262/U	Weatherproof panel jack	1.44
31-015	UG-261/U	Weatherproof jack	1.62

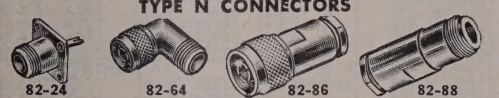
TYPE BN CONNECTORS

Type BN Connectors, electrically similar to BNC. Use in video, trigger-pulse and low RF applications, not recommended for frequencies in excess of 200mc and 250v max. Use only on inside equipment and for replacement purposes.

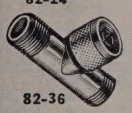
For RG-55, 58, 58A, 59, 62, 71/U Cables

Amph. No.	JAN No.	Description	Net Each
82-21	UG-85/U	Plug	$1.62
82-25	UG-114/U	Panel jack	2.46
82-26	UG-115/U	Jack	1.92
82-42	UG-87/U	Receptacle	1.32
31-101	UG-206/U	Bulkhead receptacle	2.46
31-759	.....	Shield grounding lug for 31-101	.12

TYPE N CONNECTORS



82-24 82-64 82-86 82-88



82-36

Type N Connectors are the most popular constant impedance connectors for medium size cables such as RG-8/U. Weatherproof. Useful up through microwave frequencies. May be used with 75 ohm cables with little impedance discontinuity.

50 Ohm For RG-8, 9, 9A, 10, 87, 116/U and Other Cables

Amp. No.	JAN No.	Description	Net Each
82-61	UG-21B/U	Plug with teflon insulator	$2.10
82-96	UG-21C/U	Air Force version of 82-61	2.28
82-104	UG-167A/U	Plug for RG-17, 18/U teflon ins.	4.86
82-105	UG-204A/U	Plug for RG-14/U	2.82
82-835	.....	Angle plug with teflon insulator	4.50
82-62	UG-22B/U	Panel jack with teflon insulator	2.10
82-95	UG-22C/U	Air Force version of 82-62	1.86
82-63	UG-23B/U	Jack with teflon insulator	1.62
82-94	UG-23C/U	Air Force version of 82-63	2.34
82-67	UG-160A/U	Bulkhead jack with teflon insul.	2.40
82-93	UG-160B/U	Air Force version of 82-67	2.40
82-48	MX-564/U	Armor clamp for RG-10 & 116/U	.78
82-24	UG-58/U	Receptacle with teflon insulator	1.38
82-97	UG-58A/U	Receptacle with teflon insulator	1.26
83-1H	UG-106/U	Hood for panel receptacles	.30
82-66	UG-30/U	Pressurized feed-through	1.98
82-100	UG-57B/U	Adapter with plug ends, tef. ins.	3.42
82-65	UG-29A/U	Adapter with teflon insulator	1.74
82-101	UG-29B/U	Adapter with teflon insulator	2.40
82-36	UG-107A/U	Tee adapter with teflon insulator	5.46
82-102	UG-107B/U	Tee adapter with teflon insulator	3.72
82-99	UG-28A/U	Tee adapter with female ends, Tef.	3.84
82-106	MX-913/U	Cap and chain for receptacles	.72

50 Ohm For RG-5, 5A, 21/U, also with 6/U

82-86	UG-18B/U	Plug with teflon insulator	$2.40
82-87	UG-19B/U	Panel jack with teflon insulator	2.28
82-88	UG-20B/U	Jack with teflon insulator	2.04

70 Ohm For RG-11, 12, 13/U

82-84	UG-94A/U	Plug with teflon insulator	$2.58
82-90	UG-96A/U	Panel jack with teflon insulator	2.10
82-89	UG-95A/U	Jack with teflon insulator	1.86

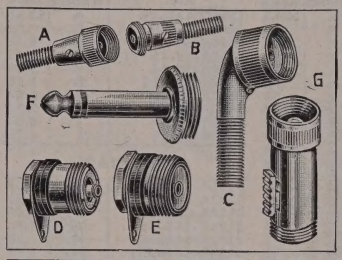
NEW QWIK MICROPHONE CONNECTORS

A B C D

Amphenol QWIKS, the newest, most efficient and attractive mike connectors ever offered. Available in 3 or 4 contacts with either male or female plugs or receptacles. Shell bodies are high grade zinc alloy, insert material is Amphenol blue dielectric 1-501. Contacts are gold plated for easy soldering. Satin nickel finish resists corrosion. Connectors are fast acting, positive contact quick disconnect units.

Amphenol No.	Description	Contacts	Fig.	Net Each
91-853	Male Plug	3	A	$0.93
91-854	Female Plug	3	C	1.14
91-855	Male Receptacle	3	D	.69
91-856	Female Receptacle	3	B	1.38
91-857	Male Plug	4	A	.93
91-858	Female Plug	4	C	1.26
91-859	Male Receptacle	4	D	.69
91-860	Female Receptacle	4	B	1.53

MICROPHONE CONNECTORS



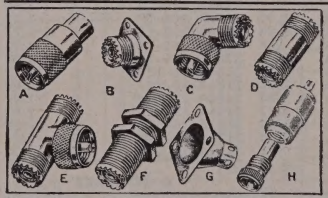
PRESSURE TYPE

In the 75 Series, plugs mate all cable jacks and receptacles. Pressure contacts spring actuated. Circuit closing contacts same except that they close circuit when plug is disengaged. Mounts in .385" hole grounded to chassis, ½" hole, ungrounded.

Amph. No.	Fig.	Description	Net
75-PC1M	E	Locknut receptacle	$0.23
75-CL-PC1M	D	Locknut receptacle, closed circuit	.34
75-MC1P	F	Standard phone plug adaptor	.31
75-CCC1	....	Dust-cover cap and chain	.25
75-MC1S	G	Microphone switch, push to talk or slide	$1.10
75-MC1F-A	C	Angle plug	.60
75-MC1F	A	Straight plug	.32
75-MC1M	B	Cable jack	.21

MICROPHONE CONNECTORS—1, 2, 3, 4 CONTACT

Amph. No.	Description	Contacts	Net
80M	Male plug	1	$0.43
80F	Female cable jack	1	.38
80C	Female chassis receptacle	1	.35
80-MC2M	Male plug	2	.45
80-MC2F	Female cable jack	2	.40
80-PC2F	Female chassis receptacle	2	.37
91-MC3M	Male plug	3	.65
91-MC3F	Female cable jack	3	.65
91-PC3F	Female chassis receptacle	3	.52
91-MC4M	Male plug	4	.67
91-MC4F	Female cable jack	4	.68
91-PC4F	Female chassis receptacle	4	.53



UHF 83 SERIES COAXIAL CONNECTORS

Amphenol Low-loss RF Connectors, Adapters and Terminations have been especially designed for use with Coaxial and Twin Coaxial Cable similar to Amphenol RG-/U cable.

Amph.	Fig.	Description	Net
83-1SP	A	Plug for small and medium sized cable	$0.78
83-168	H	Reducing adapter for RF-59, 62, 71/U	.18
83-185	H	Reducing adapter for RG-29, 55, 58/U	.18
83-776	A	Plug for RG-29, 55, 58, 59, 62/U	.90
83-1R	B	Receptacle, mica filled insert	.72
83-1H	G	Hood for RG-8, 10, 11, 12, 22/U	.30
83-1HP	G	Receptacle hood for RG-9 and 13/U	.36
83-1T	E	T connector	1.92
83-1AP	C	Angle plug adapter	1.68
83-1J	D	Junction	1.02
83-1F	F	Feed-through, pressurized	1.80

TWIN COAXIAL CONNECTORS

83-22SP	A	Straight plug	1.02
83-22R	B	Chassis or box type receptacle	1.14
83-22AP	C	Angle plug adapter	1.92
83-22J	D	Junction	1.50
83-22F	F	Pressurized feed-through	2.22
83-22T	E	T connector	2.88

AMPHENOL Type AN Connectors

3100A 3101A 3102A 3106A 3106B 3108A 3108B 9760 3057

Listed below are a few of the many "AN" type connectors, all approved under specification MIL-C-5015B. For further listings write for Amphenol's latest catalog of "AN" connectors. **Shell Types: Solid Shell** includes Nos. **3100A** Wall Receptacle with flange to eliminate conduit box; **3101A** Cable Receptacle for detachable splices in cable—back shell removable for soldering connections; **3102A** Box Receptacle, mounts directly on equipment for open wiring; **3106A** Straight Plug with removable back shell; **3108A** Angle Plug for dust and moisture-tight connections, angle rotates to permit wire take-off at any angle. **Split Shell** includes Nos. 3106B Straight Plug and 3108B Angle Plug, both with removable shell halves. All "AN" shells have polarizing key. All are interchangeable with former counterparts. Part No. indicates approximate shell size between threads in sixteenths of an inch (AN3102A-8S-1P is 8/16 or ½"). **Code of Ratings: Amperes** (Contact sizes indicate current ratings): **Size 20,** 10 amps; **Size 16,** 20 amps; **Size 12,** 35 amps; **Size 8,** 60 amps; **Size 4,** 110 amps; **Size 0,** 200 amps. **Voltage** (Operating voltages are rated at sea level; AC voltages are RMS): **Inst.,** 70 v. DC, 50 v. AC; **A,** 200 v. DC, 150 v. AC; **D,** 500 v. DC, 275 v. AC; **C,** 3000 v. DC, 2100 v. AC. **Contact Ratings** (with number of contacts at each rating): **A.** 16, A; **B.** 16, D; **C.** 16, Inst.; **D.** 12, A; **E.** 12, D; **F.** 12, C; **G.** 8, D; **H.** 4, A; **I.** 0, A; **J.** 2-4, 3-12, A; **K.** 2-12, 4-16, D; **L.** 2-12, 5-16, Inst.; **M** 1-12, 7-16, A; **N.** 16, 4D, 2A; **O.** 1-12, 7-16, 1-D (ctr.), 7-A; **P.** 16, 5-D, 3-A; **Q.** 12, 7-A, 1-D; **R.** 2-12, 7-16, A; **S.** 3-12, 6-16, A; **T.** 2-12, 9-16, D; **U.** 3-16, 10-20, Inst.; **V.** 10-12, 4-16, A; **W.** 2-12, 14-16, A; **X.** 4-12, 18-16, A; **Y.** 5-12, 18-16, D; **Z.** 7-12, 28-16, A.

1 CONTACT

Amphenol No. AN-	Contact Rating	Net Each
3102A-8S-1P	A	$0.61
3106A-8S-1P	A	.98
3108A-8S-1P	A	1.28
3102A-8S-1S	A	.94
3102A-10S-2P	A	.86
3102A-10S-2S	A	.90
3106A-10S-2S	A	.90
3108B-10S-2S	A	1.04
3102A-12S-4P	B	.53
3106A-12S-4S	B	1.04
3108B-12S-4S	B	1.18
3102A-14-3P	G	.78
3102A-14S-4S	B	.67
3106A-16-12P	H	.98
3102A-18-16S	F	1.15

2 CONTACT

3106A-10SL-4S	A	$1.00
3102A-10SL-4P	A	.56
3108A-10SL-4S	A	1.38
3108B-10SL-4S	A	1.13
3102A-12S-3P	A	.60
3106A-12S-3P	A	1.02
3108A-12S-3P	A	1.49
3100A-12S-3S	A	1.04
3102A-12S-3S	A	.71
3106A-12S-3S	A	1.13
3108A-12S-3S	A	1.60
3108B-12S-3S	A	1.27
3101A-14S-9P	A	1.11
3102A-14S-9P	A	.54
3106A-14S-9P	A	1.11
3102A-14S-9S	A	.71
3106A-14S-9S	A	1.18
3108B-14S-9S	A	1.29
3101A-16-11P	D	1.24
3102A-16-11P	D	.71
3106A-16-11S	D	1.38
3102A-18-3P	D	.78
3106A-18-3S	D	1.55
3106A-24-9P	H	2.56
3102A-24-9S	H	2.15

3 CONTACT

3100A-10SL-3P	A	$0.95
3101A-10SL-3P	A	1.04
3102A-10SL-3P	A	.64
3106A-10SL-3S	A	1.09
3102A-14S-1P	A	.73
3106A-14S-1P	A	1.20
3102A-14S-1S	A	.80
3106A-14S-1S	A	1.27
3108A-14S-1S	A	1.80
3108B-14S-1S	A	1.38
3102A-14S-7P	A	.73
3106A-14S-7P	A	1.20
3101A-14S-7S	A	1.27
3102A-14S-7S	A	.80
3106A-14S-7S	A	1.27
3108A-14S-7S	A	1.80
3108B-14S-7S	A	1.38
3106A-16-10P	D	1.33
3102A-16S-5P	A	.71
3106A-16S-5S	A	1.38
3106A-16S-6P	A	1.31

4 CONTACT

3106A-12SL-844S	A	$1.69
3102A-14S-2P	A	.81
3106A-14S-2P	A	1.29
3106A-14S-2P	A	1.20
3108A-14S-2P	A	1.20
3100A-14S-2S	A	1.24
3101A-14S-2S	A	1.36
3102A-14S-2S	A	.89
3106A-14S-2S	A	1.36
3106B-14S-2S	A	1.46
3108A-14S-2S	A	1.89

4 CONTACT (CONT'D)

Amphenol No. AN-	Contact Rating	Net Each
3108B-14S-2S	A	$1.46
3102A-18-4P	B	.91
3106A-18-4P	B	1.49
3102A-18-4S	B	1.11
3106A-18-4S	B	1.69
3102A-18-15S	D	1.80
3102A-20-4P	E	1.06
3106A-20-4S	E	2.11
3106A-36-5P	I	6.67
3102A-36-5S	I	4.78

5 CONTACT

3101A-14S-5P	A	$1.38
3102A-14S-5P	A	.91
3106A-14S-5P	A	1.38
3100A-14S-5S	A	1.33
3102A-14S-5S	A	.98
3106A-14S-5S	A	1.45
3106B-14S-5S	A	1.55
3108A-14S-5S	A	1.98
3108B-14S-5S	A	1.55
3102A-16S-8P	A	.98
3102A-16S-8S	A	1.04
3106A-16S-8S	A	1.55
3102A-18-11P	D	1.11
3106A-18-11P	D	1.69
3106A-24-12P	J	2.80

6 CONTACT

3102A-14S-6P	C	$1.00
3106A-14S-6S	C	1.54
3108B-14S-6S	C	1.64
3106A-18-12P	A	1.55
3102A-18-12S	A	1.29
3106A-18-12S	A	1.87
3102A-22-5P	K	1.20
3106A-22-5S	K	2.47

7 CONTACT

3101A-16S-1P	A	$1.58
3102A-16S-1P	A	1.06
3106A-16S-1P	A	1.58
3108B-16S-1P	A	1.76
3100A-16S-1S	A	1.60
3102A-16S-1S	A	1.22
3106A-16S-1S	A	1.73
3106B-16S-1S	A	1.88
3108B-16S-1S	A	1.91
3102A-18-9P	L	1.22
3106A-18-9P	L	1.80
3100A-18-9S	L	1.82
3106A-18-9S	L	2.00
3102A-20-15P	D	1.30
3106A-20-15P	D	2.06
3102A-20-15S	D	1.78

8 CONTACT

3102A-18-8P	M	$1.29
3106A-18-8P	M	1.87
3102A-18-8S	M	1.49
3106A-18-8S	M	2.06
3102A-20-7P	N	1.36
3106A-20-7P	N	1.12
3101A-20-7S	N	2.18
3102A-20-7S	N	1.55
3106A-20-7S	N	2.32
3102A-20-9P	O	1.38
3106A-22-18P	P	2.16
3102A-22-18S	P	1.89
3106A-22-23P	Q	2.87
3102A-22-23S	Q	1.98

9 CONTACT

3102A-20-16P	R	$1.24
3106A-20-16P	R	2.01
3102A-20-18P	S	1.46
3102A-20-18S	S	1.71

10 CONTACT

Amphenol No. AN-	Contact Rating	Net Each
3102A-18-1P	A	$1.45
3106A-18-1P	A	2.02
3108B-18-1P	A	2.33
3100A-18-1S	A	2.02
3102A-18-1S	A	1.62
3106A-18-1S	A	2.20
3106B-18-1S	A	2.46
3108A-18-1S	A	3.00
3108B-18-1S	A	2.51

11 CONTACT

3106A-24-20P	T	$2.66
3102A-24-20S	T	2.24

13 CONTACT

3106A-20-11P	U	$2.33
3102A-20-11S	U	2.34

14 CONTACT

3102A-20-27P	A	$1.84
3106A-20-27P	A	2.61
3106B-20-27P	A	2.76
3108B-20-27P	A	2.90
3100A-20-27S	A	2.49
3102A-20-27S	A	2.06
3106A-20-27S	A	2.83
3106B-20-27S	A	2.98
3108A-20-27S	A	3.73
3108B-20-27S	A	3.13
3102A-22-19P	A	1.98
3102A-22-19S	A	2.20
3106A-22-19S	A	3.10
3106A-28-20P	V	3.42
3106A-28-20S	V	4.20

16 CONTACT

3106A-24-5P	A	$3.22
3102A-24-5S	A	2.65
3106A-24-5S	A	3.66
3108B-24-5S	A	3.89
3106A-24-7P	W	3.24
3100A-24-7S	W	3.26
3106A-24-7S	W	4.81
3108B-24-7S	W	3.93

17 CONTACT

3102A-20-29P	A	$1.71
3106A-20-29P	A	2.48
3102A-20-29S	A	2.33
3106A-20-29S	A	3.10

19 CONTACT

Amphenol No. AN-	Contact Rating	Net Each
3100A-22-14P	A	$2.36
3102A-22-14P	A	1.91
3106A-22-14P	A	2.80
3108B-22-14P	A	3.12
3100A-22-14S	A	3.08
3102A-22-14S	A	2.65
3106A-22-14S	A	3.54
3106B-22-14S	A	3.68
3108A-22-14S	A	3.42
3108B-22-14S	A	3.85

20 CONTACT

3102A-28-16P	A	$2.66
3106A-28-16S	A	4.20

22 CONTACT

3102A-28-11P	X	$3.11
3106A-28-11P	X	3.31
3102A-28-11S	X	3.44
3106A-28-11S	X	4.64
3106B-28-11S	X	4.73

23 CONTACT

3102A-32-13P	Y	$3.64
3102A-32-13S	Y	4.10

24 CONTACT

3101A-24-28P	A	$3.26
3102A-24-28P	A	2.38
3106A-24-28P	A	3.40
3100A-24-28S	A	3.80
3102A-24-28S	A	3.22
3106A-24-28S	A	4.24
3106B-24-28S	A	4.39

26 CONTACT

3102A-28-12P	A	$2.66
3106A-28-12P	A	3.86
3100A-28-12S	A	4.20
3102A-28-12S	A	3.56
3106A-28-12S	A	4.75
3106B-28-12S	A	4.82

35 CONTACT

3102A-28-15P	A	$3.89
3106A-28-15P	A	5.09
3102A-28-15S	A	4.22
3106A-28-15S	A	5.42
3106A-32-7P	Z	5.41
3106B-32-7P	Z	5.27
3102A-32-7S	Z	5.00
3106A-32-7S	Z	6.85

37 CONTACT

3102A-28-21P	A	$4.07
3106A-28-21P	A	5.26
3102A-28-21S	A	4.40
3106A-28-21S	A	5.60

AN CAP AND CHAIN

Amphenol Number AN-	For Shell Size	Thread	O. D. In.	Chain Lgth. In.	Net Each
9760-8	8S	1/2-28	5/8	2 9/16	$0.56
9760-10	10S	5/8-24	13/16	2 9/16	.58
9760-12	12, 12S	3/4-20	15/16	2 9/16	.62
9760-14	14, 14S	7/8-20	1 1/16	2 9/16	.73
9760-16	16, 16S	1-20	1 1/8	4 5/8	.89
9760-18	18	1 1/8-18	1 5/16	4 5/8	.94
9760-20	20	1 1/4-18	1 7/16	4 5/8	.98
9760-22	22	1 3/8-18	1 9/16	4 5/8	1.04
9760-24	24	1 1/2-18	1 11/16	4 5/8	1.07

AN CABLE CLAMPS

Amphenol Number AN-	For Shell Size	Cable O. D. In.	Thread	Net Each
3057-3	8S, 10S	5/16	1/2-28	$0.46
3057-4	12, 12S	3/8	5/8-24	.49
3057-6	14, 14S	1/2	3/4-20	.50
3057-8	16, 16S	5/8	7/8-20	.55
3057-10	18	5/16	1-20	.59
3057-12	20, 22	5/16	1 3/16-20	.62
3057-16	24, 28	3/8	1 7/16-18	.70
3057-20	32	1/2	1 3/4-18	1.20
3057-24	36	19/32	2-18	1.27

640-55B

Sockets, Plugs and Terminals by Cinch Jones

WAFER TYPE SOCKETS

TYPE A MINIATURE

TYPE B NOVAL

TYPE C OCTAL

Cinch Jones No.	Type No.	Description	Mtg. Centers	Net Each
7W2A	A	7-pin min. Chocolate XP bakelite laminations. Solder-coated brass contacts and center shield.	7/16" 1" 1 5/16"	$0.09 .11 .11
9W1	B	9-pin min. Solder-coated brass contacts and center shield.	1 1/8" 1 5/16"	.11 .13
8W1	C	Wafer octal. Fits all standard 8-prong tubes. .136 dia. mtg. hole.	1 5/16 1 1/2"	.10 .10

SADDLE TYPE SOCKETS

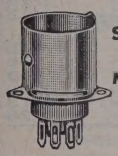
TYPE A MINIATURE

TYPE B NOVAL

TYPE C OCTAL

Cinch Jones No.	Type No.	Description	Mtg. Centers	Mounting	Net Each
7EB	A	Black	7/8"	Bottom	$0.14
7EM	A	Mica	7/8"	Bottom	.19
7AB1	A	Black	7/8"	Top	.14
7AM1	A	Mica	7/8"	Top	.19
9EB	B	Black	1 1/8"	Bottom	.22
9EM	B	Mica	1 1/8"	Bottom	.25
9AB	B	Black	1 1/8"	Top	.22
9AM	B	Mica	1 1/8"	Top	.25
8AB	C	Black	1 5/16"	Top	.10
8AM	C	Mica	1 5/16"	Bottom	.15
8EB	C	Black	1 1/2"	Bottom	.10
8EM	C	Mica	1 1/2"	Top	.15
8EC	C	Ceramic	1 1/2"	Top	.35

SHIELD BASE TYPE SOCKETS


TYPE A MINIATURE

TYPE B NOVAL

Cinch Jones No.	Type No.	Description	Mtg. Centers	Net Each
7XB1	A	Black	7/8"	$0.26
7XM1	A	Mica	7/8"	.30
7XC	A	Ceramic	7/8"	.50
9XB	B	Black	1 1/8"	.38
9XM	B	Mica	1 1/8"	.41
9XC	B	Ceramic	1 1/8"	.58

BATTERY PLUGS

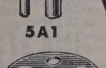
5A1

5A4

5B1A

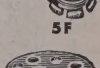
5M

5F


5AB1

5AB2

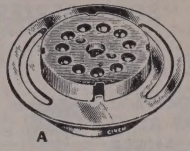
5AB5

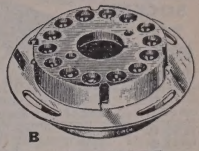

5AB6

Cinch Jones No.	Prongs	For	Net Each
5A1	2	1 1/2 A	$0.04
5A2	2	3 A	.05
5A3	2	4 1/2 A	.04
5A4	2	6 A	.04
5A5	3	7 1/2 A	.06
5B1A	3	45 B Small	.05
5B2	3	45 B Large	.05
5M	...	67 1/2 B	.03
5F	...	67 1/2 B	.04
5MFA	...	67 1/2 B	.21
5C1	3	4 1/2 C	.07
5C2	4	22 1/2 C	.08

Cinch Jones No.	Prongs	For	Net Each
5AB1	4	1 1/2 A, 90 B	$0.07
6K4	4	9 A, 90 B	.06
5AB2	4	1 1/2 A, 63, 90 B	.05
5AB3	4	6 A, 90 B	.06
5AB4	5	6 A, 90 B	.09
5AB5	4	6 A, 90 B	.07
5AB6	5	7 1/2 A, 90 B	.08
5AB7	5	9 A, 90 B	.09
5AB8	5	9 A, 90 B	.08

MAGNAL AND DIHEPTAL SOCKETS


A


B

11-PRONG MAGNAL (Fig. A) Mica-filled low loss bakelite. 1 23/64" wide x 1 9/64" high. Full floating silver plated beryllium copper contacts. For use with 5BP1 and 2AP1.
Cinch No. 3M11—Net. $4.56
No. 3R11—Steel mounting ring. Net Each 32c

14-PRONG DIHEPTAL (Fig. B) Same features as Magnal. $1.52
No. 3B14—Black. Net.
No. 3M14—Mica. Net. . $1.90
No. 3R14—Mtg. Ring. Net. 32c

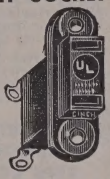
SECOND ANODE CONNECTORS

TYPE A TYPE B

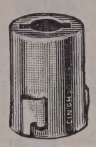
Cinch Jones No.	Type No.	Wire Lead	Net Each
3A1	A	....	$0.57
3A2	B	12"	.68
3A3	B	15"	.80
3A4	B	18"	.95

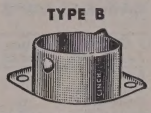
110-250 VOLT SOCKET

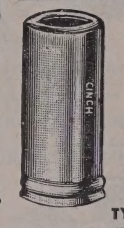
Rated at 15 amp., 110 V or 10 amp., 250 V. Accepts any standard 2-prong electric plug. Mounts in 25/64" x 25/64" hole. Ideal for radio and TV chassis.
2R2—Net. . 15c



SHIELDS AND SHIELD BASES


TYPE A

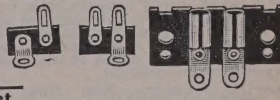

TYPE B


TYPE C

Cinch Jones No.	Type No.	Description	Height	Net Each
7S2	A	Miniature	1 3/8"	$0.13
7S3	A	Miniature	1 3/4"	.13
7S4	A	Miniature	2 1/4"	.19
7SB1	B	Miniature	5/8"	.13
7S1	C	Miniature	1 11/64"	.08
9S1	A	Noval	1 1/2"	.20
9S2	A	Noval	1 15/16"	.22
9S3	A	Noval	2 3/8"	.28
9SB1	B	Noval	1 1/8"	.17

TERMINAL STRIPS

SCREW TYPE — A LUG TYPE — B CONTACT TYPE



SCREW TYPE

Cinch No.	Contacts	Mtg. Ctrs.	Net Each
17-1	1	7/8"	$0.04
17-2	2	1 5/8"	.06
17-3	3	1 3/4"	.09
17-4	4	2 3/16"	.12
17-5	5	2 5/8"	.14
17-6	6	3 1/8"	.17
17-7	7	3 1/2"	.21
17-8	8	3 15/16"	.23
17-9	9	4 3/8"	.27
17-10	10	4 13/16"	.29

CONTACT TYPE

Cinch Jones No.	Contacts	Mtg. Ctrs.	Net Each
49-1	1	3/4"	$0.04
49-2	2	1 1/8"	.06
49-3	3	1 1/2"	.08
49-4	4	1 7/8"	.10
49-5	5	2 1/4"	.12
49-6	6	2 5/8"	.14

LUG TYPE

Cinch Jones No.	Type	Contacts	Mtg. Centers	Net Each
51	A	1	....	$0.02
51A	B	2	....	.02
52	A	2	....	.03
52A	B	3	....	.03
54	A	4	1 7/8"	.05
54A	B	6	1 7/8"	.05
55	A	5	2 1/4"	.06
55A	B	7	2 1/4"	.06
56	A	6	2 5/8"	.07
56A	B	8	2 5/8"	.07

SUB-MINIATURE HEARING AID SOCKETS

Molded from mica filled low-loss bakelite with silver plated beryllium copper contacts. For Raytheon Type CK series subminiature tubes.

		Net Each
2H5	5-prong	$0.28
2H6	6-prong	.29
2H7	7-prong	.31

Howard B. Jones Connectors

Cinch Jones

"300" SERIES CONNECTORS

Compact, Polarized Connectors. Black crystal finished metal caps encase metal body. Phosphor bronze "knifeswitch" type socket contacts engage both sides of flat plug contacts. Rated at 730 rms volts at 10 amps.

SOCKETS TYPE SB SHALLOW BRACKETS

S315 SB

Cinch Jones No.	Contacts	Net Each
S315SB	15	$0.97
S318SB	18	1.16
S321SB	21	1.35
S324SB	24	1.59
S327SB	27	1.78
S330SB	30	2.02
S333SB	33	2.21

PLUGS TYPE SB SHALLOW BRACKETS

P315 SB

Cinch Jones No.	Contacts	Net Each
P315SB	15	$0.86
P318SB	18	1.06
P321SB	21	1.25
P324SB	24	1.49
P327SB	27	1.67
P330SB	30	1.91
P333SB	33	2.11

SOCKETS TYPE AB WITH ANGLE BRACKETS

Cinch Jones No.	Contacts	Net Each
S302AB	2	$0.19
S303AB	3	.23
S304AB	4	.26
S306AB	6	.32
S308AB	8	.40
S310AB	10	.47
S312AB	12	.55

PLUGS TYPE AB WITH ANGLE BRACKETS

Cinch Jones No.	Contacts	Net Each
P302AB	2	$0.17
P303AB	3	.22
P304AB	4	.24
P306AB	6	.29
P308AB	8	.35
P310AB	10	.40
P312AB	12	.44

SOCKETS TYPE CCT WITH CABLE CLAMPS

Cinch Jones No.	Contacts	Net Each
S302CCT	2	$0.41
S303CCT	3	.44
S304CCT	4	.47
S306CCT	6	.55
S308CCT	8	.63
S310CCT	10	.71
S312CCT	12	.80

PLUGS TYPE CCT WITH CABLE CLAMPS

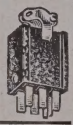
Cinch Jones No.	Contacts	Net Each
P302CCT	2	$0.40
P303CCT	3	.43
P304CCT	4	.47
P306CCT	6	.52
P308CCT	8	.57
P310CCT	10	.64
P312CCT	12	.70

400 SERIES AND 2400 SERIES

400 Series are rated at 11,000 rms volts at 15 amps. Polarized Phosphor bronze "knifeswitch" socket contacts engage both sides of flat plug contacts.

2400 Series are an improved design similar to the 400 series. Barriers around the terminals increase the creepage distance of contact to contact and contact to ground, resulting in higher current rating. Interchangeable with the 400 series.

400 SERIES PLUGS TYPE CCT WITH CABLE CLAMPS

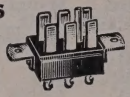


Cinch Jones No.	Contacts	Net Each
P402CCT	2	$0.68
P404CCT	4	.82
P406CCT	6	.97
P408CCT	8	1.10
P410CCT	10	1.24
P412CCT	12	1.39
2400 SERIES		
P2402CCT	2	.83
P2404CCT	4	.94
P2406CCT	6	1.06
P2408CCT	8	1.16
P2410CCT	10	1.28
P2412CCT	12	1.41

400 SERIES SOCKETS TYPE CCT WITH CABLE CLAMPS

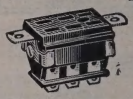
Cinch Jones No.	Contacts	Net Each
S402CCT	2	$0.73
S404CCT	4	.92
S406CCT	6	1.11
S408CCT	8	1.30
S410CCT	10	1.50
S412CCT	12	1.69
2400 SERIES		
S2402CCT	2	.90
S2404CCT	4	1.00
S2406CCT	6	1.12
S2408CCT	8	1.24
S2410CCT	10	1.37
S2412CCT	12	1.50

400 SERIES PLUGS TYPE AB ANGLE BRACKETS



Cinch Jones No.	Contacts	Net Each
P402AB	2	$0.43
P404AB	4	.52
P406AB	6	.63
P408AB	8	.73
P410AB	10	.82
P412AB	12	.91
2400 SERIES		
P2402SB	2	.59
P2404SB	4	.70
P2406SB	6	.81
P2408SB	8	.92
P2410SB	10	1.05
P2412SB	12	1.16

400 SERIES SOCKETS TYPE AB ANGLE BRACKETS



Cinch Jones No.	Contacts	Net Each
S402AB	2	$0.49
S404AB	4	.63
S406AB	6	.77
S408AB	8	.91
S410AB	10	1.06
S412AB	12	1.20
2400 SERIES		
S2402SB	2	.65
S2404SB	4	.76
S2406SB	6	.88
S2408SB	8	1.00
S2410SB	10	1.13
S2412SB	12	1.25

JONES BARRIERS No. 140-141-142 SERIES

Increased insulation is provided by having barriers placed between each terminal. These barriers follow around the edge of the strips and terminate at the base. They not only make a long leakage path but prevent direct shorts from frayed wires at terminals.

140

Base Dim. 7/8" wide x 13/32" High. 3/8" Term. Centers.

Cinch Jones No.	Term.	Net Each
2-140	2	$0.14
3-140	3	.20
4-140	4	.25
5-140	5	.31
6-140	6	.35
8-140	8	.46
10-140	10	.57
12-140	12	.67

Up to 21 contacts.

Base Dim. 1 1/8" Wide x 1/2" High. 7/16" Term. Centers.

Cinch Jones No.	Term.	Net Each
2-141	2	$0.19
3-141	3	.25
4-141	4	.32
5-141	5	.39
6-141	6	.45
8-141	8	.59
10-141	10	.73
12-141	12	.86

Up to 20 contacts.

Base Dim. 1 5/16" Wide x 5/8" High. 9/16" Term. Centers.

Cinch Jones No.	Term.	Net Each
2-142	2	$0.22
3-142	3	.31
4-142	4	.39
5-142	5	.47
6-142	6	.55
8-142	8	.72
10-142	10	.89
12-142	12	1.06

Up to 17 contacts.

JONES FANNING STRIPS

6-161-L 6-161-R 6-160-L 6-160-R

160 Series fit the 140 series barriers. Terminals are mounted on 3/8" Bakelite, 1/2" wide and on 3/8" centers.
161 Series fit the 141 series barriers. Terminals are mounted on 3/8" Bakelite, 5/8" wide and on 7/16" centers.
162 Series (not illustrated) are the same design as the 161 series, but fit the 142 series barriers. Terminals are mounted on 3/8" Bakelite, 5/8" wide and on 9/16" centers.

No. Term.	160 Series*	Net Each	161 Series†	Net Each	162 Series•	Net Each
2	160L—160R	8c	161L—161R	8c	162L—162R	10c
3	160L—160R	12c	161L—161R	13c	162L—162R	14c
4	160L—160R	15c	161L—161R	16c	162L—162R	17c
5	160L—160R	19c	161L—161R	20c	162L—162R	21c
6	160L—160R	23c	161L—161R	24c	162L—162R	26c
8	160L—160R	31c	161L—161R	31c	162L—162R	33c
10	160L—160R	38c	161L—161R	39c	162L—162R	41c
12	160L—160R	46c	161L—161R	46c	162L—162R	48c

*Up to 21 contacts. †Up to 20 contacts. •Up to 17 contacts.

JONES 2000 SERIES

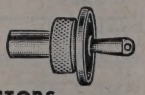
Compact and sturdy junction terminal strip. Useful in assembling radio chassis, wiring, etc. Available in sizes from two terminals to thirteen terminals. Sturdy bakelite insulation.

Terminals of .019 brass, tin plated on 5/16" centers. Cadmium plated steel mounting brackets.

Cinch Jones No.	Term.	Mtg. Ctrs.	Net Each
2002	2	1"	$0.05
2003	3	1 5/16"	.06
2004	4	1 5/8"	.06
2005	5	1 15/16"	.07
2006	6	2 1/4"	.07
2007	7	2 9/16"	.08
2008	8	2 7/8"	$0.08
2009	9	3 1/16"	.09
2010	10	3 1/2"	.09
2011	11	3 13/16"	.10
2012	12	4 1/8"	.10
2013	13	4 7/16"	.11

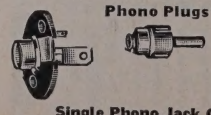
JONES 101 SERIES

Low loss type for high frequency. Uses prongs 1/8" diameter. Nickel plated brass. For co-axial or shielded single wire conductor.



P101 1/4" Male **$0.43** | **S101** Female **$0.38**

RCA TYPE PHONO CONNECTORS



Phono Plugs

Cinch No.	Dimensions	Net Each
13A Plug	9/16" pin	$0.06
13E plug	11/16" pin	.06

Jack, 11/16" mounting centers for use with "A".

Single Phono Jack Cinch No. 81A—Net Each..... **$0.09**

Cannon Electric Connectors

TYPE O FITTINGS

This series consists of a line of 3-contact val shaped plugs and receptacles, equipped ith Latch Locking Device. Contacts are lver-plated, full-floating, non-twisting, arry 30-amp. capacity. Solder terminals re tinned for ease of wiring. 30-amp. con- acts accommodate No. 10 B & S stranded ire.

YPE "O3-42" MICROPHONE OR PANEL RECEPTACLE

(With Pin Insert)

Has flat base with two lugs or mounting with No. -40 oval-head screws. Made of die-cast zinc and admium plated.

Cannon No. 03-42—Wt. 0.271 bs. Net Each..... **$5.19**

YPE "O3-41" 90° MICROPHONE OR PANEL RECEPTACLE

(With Socket Insert)

Flat base is flanged and is attached to microphone or panel by means of two No. 4-40 oval-head mounting screws. Made of die-cast zinc, cadmium plated.

Cannon No. 03-41—Wt. 0.274 bs. Net Each..... **$5.19**

TYPE "03-11" STRAIGHT CORD PLUG

(With Socket Insert)

Has integral clamp for 9/32" r smaller cable. Made of ie-cast zinc, cadmium lated.

Cannon No. 03-11—Wt. .113 lbs. Net Each..... **$3.66**

TYPE "03-12" STRAIGHT CORD PLUG

(With Pin Insert)

Corresponds with No. 03-11 "Type O" Straight Cord Plug (Socket Insert). Has integral cable clamp for 9/32" or smaller cable. Made of die-cast zinc, cadmium plated.

Cannon No. 03-12—Wt. 0.104 bs. Net Each..... **$3.66**

TYPE "03-13" FLUSH WALL RECEPTACLE

(With Socket Insert)

Flange is 2" in diameter, rilled with four holes to ake No. 4-40 oval-head nounting screws 90° apart n a radius of 15/16". Made f die-cast zinc, cadmium lated. Latch Locking Device is operated from anel front.

Cannon No. 03-13—Wt. 0.148 bs. Net Each..... **$4.29**

TYPE "03-14" FLUSH WALL RECEPTACLE

(With Pin Insert)

The flange is 2" in diameter, drilled with four holes to take No. 4-40 oval-head mounting screws, 90° apart, on a radius of 15/16". Made of die-cast zinc, cadmium plated.

Cannon No. 03-14—Wt. 0.107 bs. Net Each..... **$4.29**

TYPE X FITTINGS

This series of small connectors offers inexpensive fittings of reliable quality for sound service, radio, public address sys tems and geophysical research. In addition to compactness, many exclusive Cannon features are embodied in this series, such as full floating contacts in all socket inserts. Solder pot cable connections are easily accessible. Cable glands are removable. Contacts are so positive that no latching device is needed for ordinary uses.

TYPE "X-11" CORD PLUG

(With Socket Insert)

Sturdily built for dependable service. Light in weight. Shell is die-cast zinc, nickel finish. Will take 1/16 to 7/32" cable. Used in conjunction with the units listed below.

Cann. No.	Contacts	Cap. Amps.	Wgt. Lbs.	Net Each
X-1-11	1	15	0.081	$1.38
X-3-11	3	15	0.083	1.38
X-4-11	4	3 @ 10 1 @ 15	0.085	2.55

TYPE "X-12" CORD PLUG

(With Pin Insert)

For use in conjunction with X-11 Straight Cord Plug (Socket Insert) or X-13 Wall Receptacle (Socket Insert). Shell is die-cast zinc, nickel finish. Will take 1/16 to 7/32" cable.

X-1-12	1	15	0.061	$1.23
X-3-12	3	15	0.063	.99
X-4-12	4	3 @ 10 1 @ 15	0.065	1.80

TYPE "X-13" WALL RECEPTACLE

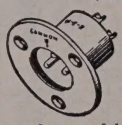
(With Socket Insert)

Body fits in 7/8" hole and extends 1 1/16" behind flange. Flange is 1 3/8" in diameter and drilled for three No. 4-40 oval-head screws on 17/32" radius 120° apart. Shell is die-cast zinc, nickle finish. To be used with X-12 straight cord plug.

X-1-13	1	15	0.081	$1.38
X-3-13	3	15	0.083	1.38
X-4-13	4	3 @ 10 1 @ 15	0.085	2.55

TYPE "X-14" WALL RECEPTACLE

(With Pin Insert)



Body fits in 3/4" hole and extends 21/32" behind the flange, which is 1 3/8" in diameter and drilled for three No. 4-40 oval-head screws on 17/32" radius, 120° apart. Shell is zinc, nickle plated finish. Solder pots extend 1/4" beyond rear of body. Used in conjunction with X-11.

X-1-14	1	15	0.040	$0.99
X-3-14	3	15	0.042	.99
X-4-14	4	3 @ 10 1 @ 15	0.044	1.80

TYPE "X-42" MICROPHONE RECEPTACLE

(With Pin Insert)

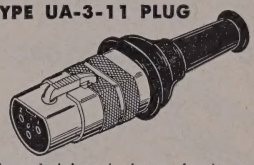
Has all the features of "Type X" Straight Cord Plugs and Wall Receptacles but it is mounted on a flat base Shell is die-cast zinc, nickle finish Use with X-11 Straight Cord Plug (Socket Insert). Mounting holes are .144" in diameter and 1" apart.

X-3-42	3	15	0.063	$0.99
X-4-42	4	3 @ 10 1 @ 15	0.065	2.19

TYPE UA FITTINGS

Plug shells are steel with steel armor barrel. The flat top design provides positive polarization. 2 bands of knurling afford grip. Receptacle shells are zinc and available in round and rectangular flanges—with 1 special mounting type -42. Shells are satin chrome plated for protection and modern appearance. The high dielectric molded insulators are removable for soldering. Durez material. Rubber cushion fits over pin contacts at mating face. Three 15 ampere gold-plated contacts give low loss, better conductivity. Solder cups are fully tinned. Contacts precision milled, and socket contacts are full-floating. Minimum flashover voltages rated at 1500 volts. The "G" grounding contact engages before the other two contacts for grounding and shielding purposes. Cable clamp entry of 1/2" protected by rubber bushing. The thumb-action latchlock makes possible quick insertion and positive engagement, with thumb action release. Latch is larger than previous designs.

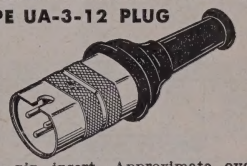
TYPE UA-3-11 PLUG



With socket insert. Approximate over-all length, 3 1/2 inches. Approximate diameter, 1 1/16 inches. Fits cables to 21/64" O. D. Weight 0.15 lbs.

Cannon No. UA-3-11 Plug— Net Each..... **$3.21**

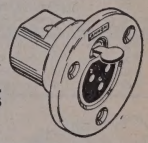
TYPE UA-3-12 PLUG



With pin insert. Approximate over-all length 3 1/4". Approximate diameter 1 1/16". Fits cables to 21/64" O. D. Weight 0.11 lbs.

Cannon No. UA-3-12 Plug— Net Each..... **$2.64**

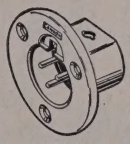
TYPE UA-3-13 RECEPTACLE



With socket insert. Weight 0.14 lbs.

Cannon No. UA-3-13. Net Each..... **$2.46**

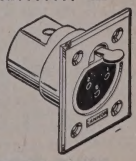
TYPE UA-3-14 RECEPTACLE



With pin insert. Weight 0.08 lbs.

Cannon No. UA-3-14. Net Each..... **$1.50**

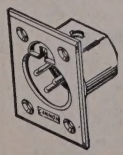
TYPE UA-3-31 RECEPTACLE



Woth socket insert. Weight 0.13 lbs.

Cannon No. UA-3-31. Net Each..... **$2.46**

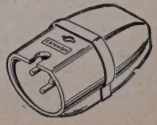
TYPE UA-3-32 RECEPTACLE



With pin insert. Weight 0.07 lbs.

Cannon No. UA-3-32. Net Each..... **$1.50**

TYPE UA-3-42 RECEPTACLE



With pin insert.

Cannon No. UA-3-42. Net Each.... **$2.97**

Cannon Electric Connectors

"U" SUBMINIATURE

UC-3-11

UC-3-50N-302

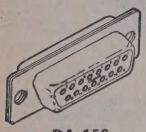
Subminiature in size, with hermetically sealed vitreous insulated receptacles, Silicon insulated plugs. 5-amp. contacts, 1700 v DC flashover.

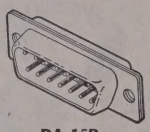
PLUGS (SOCKET INSERT)

Cannon No.	Contacts	Weight	Net Each
UC-3-11	3	.0088 lbs.	$1.60
UD-6-11	6	.0161 lbs.	1.96
UE-12-11	12	.....	2.54
RECEPTACLES (PIN INSERT)			
UC-3-50-002*	3	.0026 lbs.	$0.94
UC-3-50N-302†	3	.....	1.53
UD-6-50N-302†	6	.....	1.81
UE-12-50N-302†	12	.....	2.33
UD-6-50-002*	6	.0053 lbs.	1.18
UE-12-50-002*	12	.....	1.60

*For solder applications. †Locknut for mechanical application including lockwasher.

"D" SUBMINIATURE


DA-15S


DA-15P

Small, compact, light-weight. Gold plated, 5-amp. contacts, 1700 VDC flashover. Steel shell, cadmium finish. Rack type makes a movable plug with addition of junction shell.

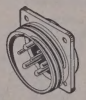
PIN INSERT

Cannon No.	Contacts	Weight	Net Ea.
DA-15P	15	.013 lbs.	$1.54
DB-25P	25	.023 lbs.	2.20
DC-37P	37	.035 lbs.	3.12
DD-50P	50	.035 lbs.	4.06
SOCKET INSERT			
DA-15S	15	.014 lbs.	$1.86
DB-25S	25	.031 lbs.	2.75
DC-37S	37	.035 lbs.	3.92
DD-50S	50	.040 lbs.	5.16

JUNCTION SHELLS

Cannon No.	Connector	Weight	Net Ea.
DA-J/S	15 contact	.010 lbs.	21c
DB-J/S	25 contact	.014 lbs.	24c
DC-J/S	37 contact	.014 lbs.	27c
DD-J/S	50 contact	.016 lbs.	30c

"K" (BP) TYPES



Used widely for telephone equipment.

Type BP (SK)-M7-21C-½ Plug—With socket insert. ½" clamp entry. Mates with receptacle below. 3-contact, 10 amps.; 4-contact, 30 amp. Wt., .066 lbs. Net Each $2.84

Type BP (SK) -M7-32S Receptacle—With pin insert. For plug shown above. Center line to center line mounting holes, 1.038". 3-contact, 10 amps.; 4-contacts, 30 amps. Wt., .04 lbs. Net Each $1.19

TEST POINT JACKS

High quality receptacles built for general lab use. Designed for standard test prods 0.081" in diameter. Extended insulation at rear affords higher flashover values. Beryllium copper, silver plated contact; nylon insulation; nickel-plated brass body; hex., silver-plated brass locknut; shake-proof lockwasher; 5-7μμf capacitance. **Colors:** White (**45E1**); red (**45E2**); black (**45E3**); brown (**45E4**); green (**45E5**); orange (**45E6**); or blue (**45E7**). Order color by number. Any color, Net Each 52c

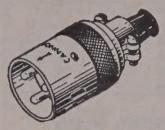
TYPE P FITTINGS

TYPE P-CG-11S CORD PLUG

This new type plug with steel shell and integral zinc clamp is 11/64" shorter than the old type and has an overall length of 2 39/64". The new rubber bushing for the P2 and P3 allows a 5/16" D. max. cable entry and on P4, P5, P6 and P8 a 15/32" D. max. cable entry. Satin chrome finish.

Cannon No.	Contacts	Cap. Amps.	Wgt. Lbs.	Net Each
P2-CG-11S	2	30	0.201	$3.69
P3-CG-11S	3	30	0.202	3.78
P4-CG-11S	4	30	0.198	3.99
P5-CG-11S	5	30	0.203	4.20
P6-CG-11S	6	30	0.208	4.32
P8-CG-11S	8	15	0.207	4.62

TYPE P-CG-12S CORD PLUG

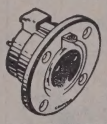


Similar construction and material to the 11S, except for pin insert. New rubber bushing on P4 to P8 fittings is contained within the shell and lines the solder pot cavity. Same cable entry sizes as 11S.

Cannon No.	Contacts	Cap. Amps.	Wgt. Lbs.	Net Each
P2-CG-12S	2	30	0.165	$3.00
P3-CG-12S	3	30	0.168	3.09
P4-CG-12S	4	30	0.164	3.18
P5-CG-12S	5	30	0.168	3.24
P6-CG-12S	6	30	0.172	3.39
P8-CG-12S	8	30	0.168	3.60

TYPE "P-13" PANEL RECEPTACLE FLUSH MOUNTING

(With Socket Insert)



Has Latch Locking Device which operates from front of panel. Made of die-cast zinc, satin chrome finish. Flange is 2" in diameter and drilled and countersunk at four points on 13/16" radius for four No. 4-40 oval head machine screws.

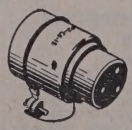
P2-13	2	30	0.202	$3.09
P3-13	3	30	0.206	3.21
P4-13	4	30	0.210	3.39
P5-13	5	30	0.214	3.60
P6-13	6	30	0.218	3.72
P8-13	8	15	0.214	3.99

TYPE "P-14" RECEPTACLE FLUSH MOUNTING

Flange is 2" in diameter, drilled with four .120 diameter holes to take four No. 4-40 oval-head mounting screws, arranged 90° apart on a radius of 13/16". Shell is die-cast zinc, satin chrome finish.

Cannon No.	Contacts	Cap. Amps.	Wgt. Lbs.	Net Each
P2-14	2	30	0.104	$1.62
P3-14	3	30	0.107	1.68
P4-14	4	30	0.110	1.80
P5-14	5	30	0.113	1.86
P6-14	6	30	0.116	2.01
P8-14	8	15	0.113	2.22

TYPE "P-CG-15" 90° CORD PLUG



Has split shell and all other "Type P" features found in "Type P-15, 90° Plug" except cable connection, which is an Integral Clamp for ½" or smaller cable. Made of cast aluminum alloy, finished in tin plate and clear lacquer.

Cannon No.	Contacts	Cap. Amps.	Wgt. Lbs.	Net Each
P2-CG-15	2	30	0.220	$4.14
P3-CG-15	3	30	0.224	4.29
P4-CG-15	4	30	0.228	4.50
P5-CG-15	5	30	0.232	4.68
P6-CG-15	6	30	0.236	4.80
P8-CG-15	8	15	0.232	5.10

415-53A

TYPE "P-CG-16" 90° CORD PLUG

(With Pin Insert)

Corresponds with Type P-CG-15 90° Plug (socket insert), having Integral Clamp for ½" or smaller cable. Barrel is of steel and shell of cast aluminum alloy, tin plate and clear lacquer finish. Removable cap for easy access to contacts for wiring or inspection.

P2-CG-16	2	30	0.195	$3.87
P3-CG-16	3	30	0.198	3.93
P4-CG-16	4	30	0.201	3.99
P5-CG-16	5	30	0.204	4.08
P6-CG-16	6	30	0.207	4.26
P8-CG-16	8	15	0.204	4.44

TYPE "P-41" 90° MICROPHONE OR PANEL RECEPTACLE

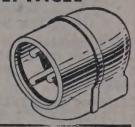
(With Socket Insert)

Can be mounted in equipment or instrument panel Equipped with Latch Locking Device. Cap is removable for easy wiring. Shell is is die-cast zinc, finished in black wrinkle enamel.

P2-41	2	30	0.249	$6.93
P3-41	3	30	0.253	7.08
P4-41	4	30	0.257	7.35
P5-41	5	30	0.261	7.65
P6-41	6	30	0.265	7.83
P8-41	8	15	0.261	8.22

TYPE "P-42" 90° MICROPHONE OR PANEL RECEPTACLE

(With Pin Insert)



For mounting on equipment or instrument panel. Cap is removable for easy wiring. Shell is made of die-cast zinc with black wrinkle enamel finish.

P2-42	2	30	0.176	$5.04
P3-42	3	30	0.179	5.19
P4-42	4	30	0.182	5.28
P5-42	5	30	0.185	5.40
P6-42	6	30	0.188	5.61
P8-42	8	15	0.185	5.91

WALL RECEPTACLES

P-35-2G P-35 P-36 P-36-2G

TYPE "P-35" SINGLE AND "P-35-2G" TWO-GANG

(With Socket Insert)

Furnished with brackets for standard switch box. Shell is die-cast zinc, satin chrome finish. P-35 plate is 4½" high and 2¾" wide. P-35-2G is 4½" high and 4 9/16" wide. Latch Locking Device operates from front of panel.

P2-35	$5.37	2	P2-35-2G	10.80
P3-35	5.49	3	P3-35-2G	11.13
P4-35	5.67	4	P4-35-2G	11.70
P5-35	5.88	5	P5-35-2G	12.24
P6-35	6.00	6	P6-35-2G	12.57
P8-35*	6.27	8	P8-35-2G	13.35

TYPE "P-36" SINGLE AND "P-36-2G" TWO-GANG

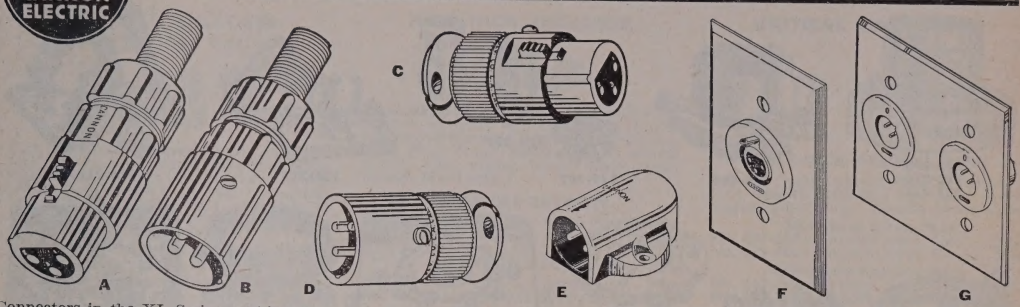
(With Pin Insert)

Same specifications as Types P-35 and P-35-2G above, except with pin insert and no locking device.

P2-36	$4.17	2	P2-36-2G	$8.55
P3-36	4.26	3	P3-36-2G	8.79
P4-36	4.32	4	P4-36-2G	8.97
P5-36	4.44	5	P5-36-2G	9.21
P6-36	4.56	6	P6-36-2G	9.66
P8-36*	4.74	8	P8-36-2G	10.23

*15 amps. capacity, others 30 amps.

XL Connectors



Connectors in the XL Series combine various features found in other Cannon types into a small fitting comparable only in size to the X Series, and designed for low level sound transmission circuits. Features include: (1) Convenient latch-lock device that holds the connector tight; (2) lightness in weight; (3) polarizing means; (4) compression gland with relief spring or integral clamp, if desired; (5) streamlined design; (6) tapped metal for insert retaining screw; (7) provision for special grounding contact and grounding to shell. Contacts are 15 amp. for No. 14 B & S stranded wire in 3 contact insert; 10 amp. in 4 contact insert. Various finishes are available, bright nickel being standard. Steel shell types are available with satin chrome finish. Flashover Voltage 1400-1600 volts.

TYPE XL-11 STRAIGHT CORD PLUG—FIG. A

Socket Insert. Equipped with latchlock and a raised polarizing boss. No. 1 contact engages before Nos. 2 and 3, and may be used for grounding purposes. 5/16" cable accommodation. Overall dimensions: Length 2 3/32"; with relief spring 2 27/32". Weight 0.0992 lbs.
Cannon No. XL-3-11—3 contact. 15 amp. Net Each..... **93c**
Cannon No. XL-4-11—4 contact. 10 amp. Net Each..... **$1.29**
Type XL-11SC Steel Shell Plug. Fig. C. Same as XL-11 except has steel shell for rugged service. Integral clamp type. Cable entry 1/4" to 15/16" max. 3/16" shorter over-all than zinc type. Weight 0.1333 lb.
Cannon No. XL-3-11SC—3 contact. 15 amp. Net Each..... **$2.04**
Cannon No. XL-4-11SC—4 contact. 10 amp. Net Each.. **$2.40**

TYPE XL-12 STRAIGHT CORD PLUG—FIG. B

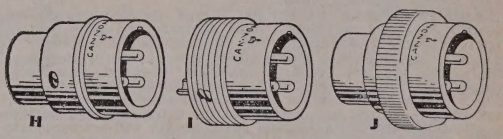
Pin Insert. Has alignment rib in addition to polarizing groove. Latchlock. Accommodates 1/16" cable. Insert is removable for inspection or soldering. Overall dimensions: Length 1 7/8", with cable relief spring 2 5/8"; max. dia. 3/4"; insert dia. 5/8". Wt. 0.0792 lb.
Cannon No. XL-3-12—3 contact. 15 amp. Net Each..... **90c**
Cannon No. XL-4-12—4 contact. 10 amp. Net Each..... **$1.20**
Type XL-12SC Steel Shell Plug. Fig. D. Same as XL-12 except has steel shell and integral clamp. 5/16" max. cable entry. Shell is 7/32" shorter than zinc. Weight 0.125 lb.
Cannon No. XL-3-12SC—3 contact 15 amp. Net Each.. **$2.01**
Cannon No. XL-4-12SC—4 contact. 10 amp. Net Each.. **$2.31**

TYPE XL-42 RECEPTACLE—FIG. E

Pin Insert. Mounts on flat base for 90° angle mounting purposes. Similar to XL-42, except has XL fittings. Weight 0.06 lb.
Cannon No. XL-3-42—3 contact. 15 amp. Net Each..... **90c**
Cannon No. XL-4-42—4 contact. 10 amp. Net Each..... **99c**

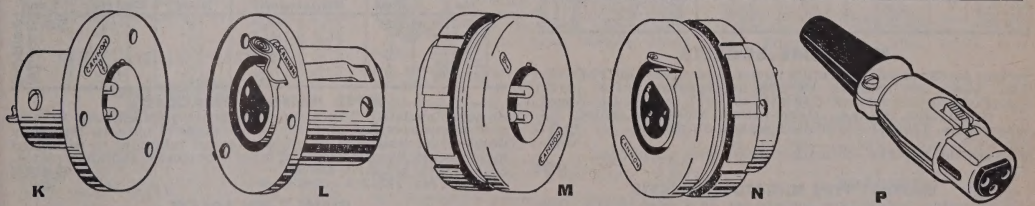
TYPE XL WALL RECEPTACLES—FIGS. F AND G

Socket Insert. Uses XL-13N type inserts. Single plate is 4 1/2" high by 2 3/4" wide; dual plate 4 1/2" high by 4 5/16" wide. Weight single face plate 0.75 lb.
Cannon No. XL-3-35—Single-gang. 3 contact. Net Each.. **$2.64**
Cannon No. XL-4-35—Single-gang. 4 contact. Net Each. **$2.91**
Cannon No. XL-3-35-2G—Two-gang. 3 contact. Net Ea. **5.61**
Cannon No. XL-4-35-2G—Two-gang. 4 contact. Net Ea. **6.33**
Pin Insert. Uses XL-14N type inserts. Plate sizes same as Socket Insert models. Weight single gang 0.715 lb.
Cannon No. XL-3-36—Single-gang. 3 contact. Net Each. **$2.67**
Cannon No. XL-4-36—Single-gang. 4 contact. Net Each. **$2.97**
Cannon No. XL-3-36-2G—Two-gang. 3 contact. Net Ea. **5.58**
Cannon No. XL-4-36-2G—Two-gang. 4 contact. Net Ea. **6.15**



TYPE XL ADAPTER RECEPTACLES

Cannon No.	Key Letter	Number of Contacts	Net Each
XL-3-50	H	3	$1.05
XL-4-50	H	4	1.44
XL-3-50T	I	3	1.14
XL-4-50T	I	4	1.56
XL-3-50N	J	3	1.29
XL-4-50N	J	4	1.89



TYPE XL-14 RECEPTACLE—FIG. K

Pin Insert. Wall mounting, with three holes 0.136" dia. in flange. Overall dimensions: Flange diameter 1 7/16"; flange thickness 3/32"; rear of flange to solder pot extension 1 1/64"; barrel diameter 3/4". Weight 0.0592 lb.
Cannon No. XL-3-14—3 contact. 15 amp. Net Each..... **72c**
Cannon No. XL-4-14—4 contact. 10 amp. Net Each..... **$1.02**

TYPE XL-13 RECEPTACLE—FIG. L

Socket Insert. Similar to XL-14 above except has socket assembly and latchlock device. Overall dimensions: Flange diameter 1 7/16"; flange thickness 3/32"; rear of flange to solder pot extension 1 3/16"; barrel diameter 15/16"; 3 mounting holes .0136" diameter. Weight 0.132 lb.
Cannon No. XL-3-13—3 contact. 15 amp Net Each..... **93c**
Cannon No. XL-4-13—4 contact. 15 amp. Net Each..... **$1.29**

TYPE XL-14N RECEPTACLE—FIG. M

Pin Insert. Designed to be mounted in a panel and has locknut accommodating up to 5/16" panel. Two fittings may be mounted on a single gang plate. Overall dimensions: Flange diameter 1 7/16"; barrel diameter 1"; width flange to barrel 27/32", with 15/64" maximum. solder pot extension; flange thickness 5/32". Weight 0.2048 lb.
Cannon No. XL-3-14N—3 contact. 15 amp. Net Each.... **87c**
Cannon No. XL-4-14N—4 contact. 10 amp. Net Each... **$1.17**

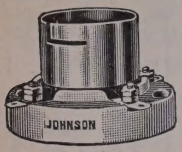
TYPE XL-13N RECEPTACLE—FIG. N

Socket Insert. Similar to XL-14N above except has socket insert assembly, with latchlock device, and polarizing boss on barrel insert. No. 1 contact engages before Nos. 2 and 3 and may be used for grounding circuit if desired. Overall dimensions: Length from face of flange including solder pot extension 1 17/64"; all other dimensions same as XL-14N. Weight 0.211 lb.
Cannon No. XL-3-13N—3 contact. 15 amp. Net Each.... **93c**
Cannon No. XL-4-13N—4 contact. 10 amp. Net Each... **$1.29**

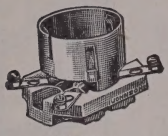
NEW TYPE XLR PLUGS FIG. P

The new Cannon XLR Series of plugs will be available soon. They are a new streamlined XL type plug with Cannon's standard XL Latchlock. They feature a new resilient type insulator instead of the plastic type used in the XL Series. Also XLR plugs incorporate a clamp similar to that found on the XL Steel Plugs (See Fig. C and D above, listed under A and B). The new resilient insulator makes for a more quiet performance and is shockproof. These plugs are the No. XLR-3-11, the three-contact socket insert type, also in four contact assemblies and in pin insert types. They mate with all other XL type plugs. WRITE FOR COMPLETE SPECIFICATIONS AND PRICES. THEY WILL BE FORWARDED AS SOON AS AVAILABLE. ALSO WRITE FOR PRICES AND INFORMATION ON ANY CANNON PRODUCT NOT LISTED IN THIS CATALOG.

E. F. Johnson Tube Sockets



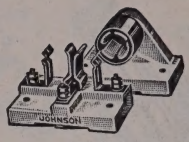
123-209
123-210
123-211


123-206

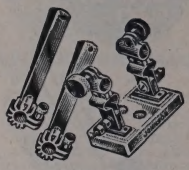
120-267

120-277

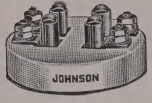
133-278



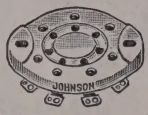
124-215


124-212

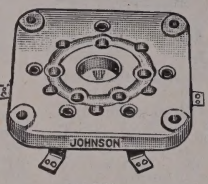
122-234



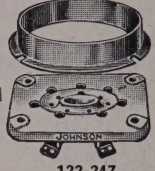
124-213



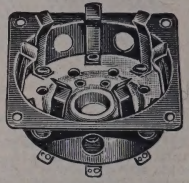
122-224
122-225
122-226
122-227
122-228



122-244



122-247
122-248


122-101

BAYONET SOCKETS

123-211—Standard "50 watt" socket for jumbo 4-pin bayonet based tubes, RETMA No. A4-29. Etched aluminum shell, glazed porcelain base with two mounting holes. Double filament contacts, phosphor bronze cadmium plated, designed for heavy current.

123-211-100—Similar to 123-211 except base is DC200 impregnated steatite and contacts are beryllium copper .005 silver plated. Iridite #14 treated aluminum shell, fungus resistant washers.

123-209—Heavy Duty socket for medium 4-pin bayonet base tubes, RETMA No. A4-10. White porcelain base equipped with four mounting holes. High current side wiping contacts are phosphor bronze, cadmium plated.

123-209-100—Similar to 123-209 except DC200 impregnated steatite base and beryllium copper contacts .005 silver plated. Iridite #14 treated aluminum shell, fungus resistant washers.

123-210—Medium Duty type bayonet, accepts 4-pin medium base tubes, RETMA No. A4-10. Compact 2½" diameter, glazed porcelain base with 2 mounting holes. Cadmium plated phosphor bronze contacts. Popular for rectifier tube applications.

123-206—Industrial bayonet socket for extremely high voltage applications. Rugged aluminum shell. Socket will accommodate 8008, FG104, GL146 and other tubes with super jumbo 4-pin bayonet bases, RETMA No. A4-18. Has steatite insulation, silver-plated beryllium copper contacts, screw terminals and 3 heavy retaining springs in the shell to hold tubes securely.

Johnson No.	Diameter	Height	Mtg. Ctrs.	Tube Base	Net
123-211	3⅜"	2 9/16"	2 13/16"	Jumbo	$1.40
123-211-100	3⅜"	2 9/16"	2 13/16"	Jumbo	2.90
123-209	2 13/16"	1 27/32"	2 5/16"	Med. Bay.	1.10
123-209-100	2 13/16"	1 27/32"	2 5/16"	Med. Bay.	2.30
123-210	2½"	1⅞"	2 1/16"	Med. Bay.	1.10
123-206	2 5/16" x 3½"	2½"	2¾"	Super Jum.	2.25

MINIATURE SOCKETS

Sockets for tubes with miniature button 7-pin bases, RETMA No. E7-1. Bases are steatite, DC-200 impregnated. Silver plated phosphor bronze contacts. Contacts for -277 are hot tin dipped. -277 shield base is brass, nickel-plated. Mounting centers ⅞".

Johnson No. 120-267—Miniature socket, all ceramic. Net Each..... **33c**

Johnson No. 120-277—Miniature socket with shield base. Net..... **49c**

MILITARY TYPE MINIATURE SOCKETS

Top-mounting, saddle type sockets per JAN Spec. S-28A. One-piece ceramic insulator, grade L-4B or better, top glazed, DC-200 impregnated. Brass shell and center shield plated to withstand salt spray test. Contacts beryllium copper, silver plated. Terminals hot tin dipped. Mounting screws ⅞" on 7-prong type, 1⅛" on 9-prong type, -177 is for tubes with 7-prong bases RETMA No. E7-1, -199 for tubes with 9-prong bases RETMA No. E9-1.

Johnson No. 120-177—Military designation TS102C01. 7-prong. Net Each..... **59c**

Johnson No. 120-199—Military designation TS103C01. Net **79c**

MINIATURE TUBE SHIELDS

Brass, nickel plated to meet MIL specifications. Twist-to-lock type construction with internal tube retaining spring. Both spring and shield are non-ferrous, non-magnetic material.

Johnson No.	Military Designation	Fits Socket	Length	Net
133-278-56	TS102U01	177, 277	1⅜"	$0.15
133-278-57	TS102U02	177, 277	1¾"	.19
133-278-58	TS102U03	177, 277	2¼"	.22
133-278-59	TS103U01	199	1½"	.22
133-278-60	TS103U02	199	1 15/16"	.24
133-278-61	TS103U03	199	2⅜"	.29
133-277	Miniature shield base for 120-267 socket			.12

SPECIAL PURPOSE 250 WATT SOCKET

124-215—A two-unit socket for "250 watt" tubes such as the 204A and 849. Anode cap RETMA Nos. C1-8, C1-9 and C-10, cathode mounting RETMA Nos. A3-20, A3-21, A3-22 and A3-22. Bases are glazed porcelain, contacts phosphor bronze, nickel plated. Net Each..... **$4.10**

SPECIAL SOCKET FOR 833 AND 833A

A special socket assembly for 833 and 833A consisting of a steatite base which supports the tube and a pair of 119-843 tube cap connectors. Knurled thumb nuts permit easy installation of tube, and base is designed to minimize strains on the tube envelope and prevent breakage. Heat radiating aluminum plate terminals have 4⅜" flexible laminated leads.

Johnson No. 124-212—Net Each..... **$6.55**

Heat Radiating Connector for 124-212—Net Each..... **$1.05**

SPECIAL SOCKET FOR EIMAC 152TL AND 304TL

A special socket for Eimac 152TL and 304TL. Contacts may be connected for either series or parallel filaments.

Johnson No. 124-213—Net Each..... **$1.45**

SPECIAL SOCKET FOR 5D21, 705A, 715A & 715B

For Western Electric tubes as listed. Includes heavy top glazed steatite base and special locking device for retaining tube in the socket.

Johnson No. 122-234—Net Each..... **$2.00**

STEATITE WAFER SOCKETS

Insulated with grade L4 or better—top and sides glazed—undersides impregnated in conformance with latest military specifications. Contacts mounted against fungus-resistant glass melamine cushion washers in molded recesses so they cannot turn. Tubes seat into contacts with constant spring tension against prongs.

STANDARD WAFERS

For standard receiving and low power transmitting tubes. Contacts are brass with steel springs, cadmium plated.

Johnson No	No Pins	Dimensions	Thickness	Mounting Centers	Net Each
122-224	4	3 5/16" x 1 11/16"	9/16"	1 11/16"	$0.39
122-225	5	2 5/16" x 1 11/16"	9/16"	1 11/16"	.42
122-226	6	2 5/16" x 1 11/16"	9/16"	1 11/16"	.46
122-227	7	2 5/16" x 1 13/16"	9/16"	1 11/16"	.49
122-228	8	2 5/16" x 1 11/16"	15/16"	1 11/16"	.52

SUPER JUMBO 4-PIN SOCKET

Steatite insulated. Takes super jumbo base tubes such as 8008 and many rectifier and thyratron types. Contacts especially designed for long parallel contact against tube pins to withstand high current. Steel springs and brass contacts are cadmium plated. 2⅝" square, ¼" thick overall.

Johnson No. 122-244—Net Each..... **$1.35**

GIANT 7-PIN SOCKET

Rugged wafer socket for tubes having the giant 7-pin base, RETMA No. A7-17, such as 4E27, HK257 and 813. Contacts, designed for maximum surface area against prongs, are cadmium plated brass with steel springs. Ventilating hole in base. 2⅝" square, ⅞" thick overall.

Johnson No. 122-237—Net Each..... **72c**

GIANT 5-PIN SOCKET

For tubes having RETMA A5-19 giant 5-pin base, such as 4-125A, 4-250A and RK48. Ventilation for tube seals provided by a central hole and 5 holes between contacts. Base is 2⅞" square with four .194" mounting holes on 2¼" centers. Pin circle, 1½" diameter. Contacts are brass with steel springs, cadmium plated.

Johnson No. 122-275—Net Each..... **$1.31**

SEPTAR SOCKETS

Designed for 7-pin tubes, RETMA No. E7-2. Bases are steatite equipped with brass contacts, steel springs, cadmium plated. Each socket furnished with 2 29/32" diameter aluminum shield ring 11/16" high.

Johnson No. 122-247—2⅝" square. Net Each..... **85c**

Johnson No. 122-248—2⅜" square. Net Each..... **$1.10**

SPECIAL SEPTAR SOCKETS

For tubes with medium molded flare Septar base, RETMA No. E7-2. Equipped with ventilated base shield, five tube retainer springs and provision for mounting button mica capacitors directly to socket. Special terminals permit direct mounting of grid coils. Two holes provided for mounting of buss bar for neutralizing leads.

Johnson No. 122-101—Net Each..... **$2.00**

255X-54C

Johnson Quality Pilot Lights

ONE-INCH ENCLOSED
FOR 105-125 VOLTS

U/L Approved, highest quality assembly for 115 v. S6 candelabra screw bulb. Chrome plated friction-fit jewel holder allows instant access to bulb from front panel. Has solder terminals; mounts in 1" hole. **Jewel colors:** red, green, amber, blue, white, clear. **Specify Color.**

No. 147-1000—Faceted jewel. Net **$1.02**
No. 147-1001—Smooth jewel. Net. **1.02**

Similar to above, except with screw terminals.

No. 147-1032—Faceted jewel. Net **$1.25**
No. 147-1033—Smooth jewel. Net. **1.25**

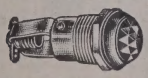
THREADED JEWEL TYPE
FOR S6 CANDELABRA BULB

U/L Approved, chrome plated jewel assembly screws out for access to bulb from front of panel. Solder terminals. **Jewel colors:** red, green, amber, blue, white, red.

Specify Jewel color.

No. 147-1200—Faceted jewel. Net **$1.26**
No. 147-1201—Smooth jewel. Net. **1.26**

ECONOMY ONE-INCH
REMOVABLE SOCKET



Low cost U/L Approved unit. Socket detaches from panel bushing to allow removing front panel without disconnecting hook-up wires. Chrome plated friction fit jewel. Takes S6 candelabra screw bulb. Requires 1" mounting hole. **Jewel colors:** red, green, amber, white, clear. **Specify Jewel color.**

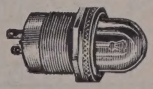
No. 147-802—Faceted jewel. Net....**71c**
No. 147-803—Smooth jewel. Net....**71c**

WIDE ANGLE "BEEHIVE"

U/L Approved. Takes 115 volts, S6 candelabra screw bulb. Extremely wide visibility. Glass jewel diffuses light. Chrome plate bezel. Mounts in 1" hole. **Jewel colors:** red, green, amber, blue, white, clear. **Specify Jewel color.**

No. 147-1600—"Beehive". Ne Ea. **$1.54**

WIDE ANGLE LUCITE



U/L Approved. Designed for T4½ candelabra base neon bulb. Lucite lens, mounted on threaded, chrome plated bezel, is "pebbled" inside for maximum light diffusion. Mounts in 1" hole. **Lens colors:** red, amber, white or clear. **Specify lens color.**

No. 147-1217—Candelabra base. Net Each..... **$1.43**

As above, except has **miniature bayonet** socket for lower power incandescent or T3¼ neon bulbs.

No. 147-1218—Min. Bayonet. Net **$1.10**

As above, except has double contact bayonet socket and integral 30,000 ohm resistor for NE-48.

No. 147-1200—Bayonet base. Net **$1.26**

HALF-INCH ENCLOSED

Available in two sizes for T3¼ miniature bayonet or G3½ miniature screw bulbs. Removable threaded jewel allows changing bulb from front panel. **Jewel colors:** amber, red, green, blue, white, clear. **Specify jewel color.**

MINIATURE BAYONET

No. 147-1110—Faceted jewel. Net...**76c**
No. 147-1111—Smooth jewel. Net...**76c**

MINIATURE SCREW

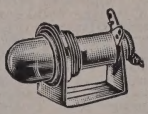
No. 147-1112—Faceted jewel. Net...**76c**
No. 147-1113—Smooth jewel. Net...**76c**

⅝" ENCLOSED-LUCITE LENS

For T3¼ miniature bayonet bulb. Wide visibility from low powered light source. Mounting hole, 11/16". **Lens colors:** red, amber, clear. **Specify lens color.**

No. 147-1142—For 47, 49 or 1490 bulb. Net Each.....**68c**
No. 147-1143—For NE-51 bulb. Contains built-in 200,000 ohm resistor. Net...**89c**

⅝" OPEN-LUCITE LENS



Low cost wide angle type for T3¼ miniature bayonet bulb. Requires 11/16" mounting hole.

No. 147-406—For 47, 49 or 1490 bulb. Net Each.....**42c**
No. 147-407—For NE-51 bulb. Contains built-in 200,000 ohm resistor. Net...**66c**

JEWEL ASSEMBLIES

One-Inch Jewel assembly includes friction-fit jewel, panel bushing, fiber washer and nut. Mounts in 1" hole. **Jewel colors:** red, green, amber, blue, white, clear. **Specify Jewel color.**

No. 147-110—Faceted jewel. Net....**43c**
No. 147-111—Smooth jewel. Net....**43c**

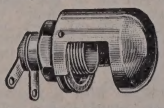
Half-Inch Jewel Assembly, nickel plated bezel and mounting nut. Mounts in 7/16" hole. **Jewel colors:** red, green, amber, blue, white, clear. **Specify color.**

No. 147-310—Faceted jewel. Net....**18c**
No. 147-311—Smooth jewel. Net....**18c**

⅜" **Miniature Jewel** for compact equipment. Requires 9/32" hole. Mounting nut furnished. **Jewel colors:** red, green, amber, blue, white, clear. **Specify color.**

No. 147-510—Faceted jewel. Net....**13c**
No. 147-511—Smooth jewel. Net....**13c**

PANEL LIGHT



For front-of-panel illumination. Polished nickel-plated hood is easily removable for lamp replacement; can be rotated to any position. Fits ½" mounting hole. Two models, for T3¼ or G3½ bulbs.

No. 147-329—Miniature bayonet base. Net Each.....**90c**
No. 147-330—Miniature screw base. Net Each.....**75c**

VERTICAL OPEN TYPES

HALF-INCH VERTICAL OPEN

Assembly nickel plated, Fits 7/16" mounting hole. **Jewels available:** red, clear, green, amber, blue, white. **Specify Jewel color.**

Miniature Screw Base
No. 147-300—Faceted jewel. Net....**30c**
No. 147-301—Smooth jewel. Net Ea.**30c**

Miniature Bayonet Base
No. 147-306—Faceted jewel. Net....**33c**
No. 147-307—Smooth jewel. Net Ea.**33c**

⅜" MINIATURE VERTICAL BASE

Very compact assembly with miniature jewel. Requires 9/32" mounting hole. **Jewel colors:** red, green, amber, blue, white, clear. **Specify jewel color.**

Miniature Screw Base
No. 147-500—Faceted jewel. Net Ea.**25c**
No. 147-501—Smooth jewel. Net Ea.**25c**

Miniature Bayonet Base
No. 147-503—Faceted jewel. Net....**28c**
No. 147-504—Smooth jewel. Net Ea.**28c**

HORIZONTAL OPEN TYPES

ONE-INCH HORIZONTAL OPEN

Economical type fits one-inch hole. Chrome plated jewel removable from front panel for access to bulb. Available for miniature screw, candelabra screw or miniature bayonet bulbs. **Jewel colors:** red, green, amber, blue, white, clear. **Specify jewel color.**

Miniature Screw Base
No. 147-100—Faceted jewel. Net....**60c**
No. 147-101—Smooth jewel. Net Ea.**60c**

Candelabra Screw Base
No. 147-103—Faceted jewel. Net....**61c**
No. 147-104—Smooth jewel. Net Ea.**61c**

Miniature Bayonet Base
No. 147-106—Faceted jewel. Net....**63c**
No. 147-107—Smooth jewel. Net Ea.**63c**

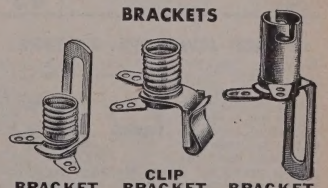
HALF-INCH OPEN

Nickel plated jewel holder and bracket. Jewel removable from front panel. **Colors:** red, green, amber, blue, white, clear. **Specify jewel color.**

Miniature Screw Type
No. 147-400—Faceted jewel. Net....**47c**
No. 147-401—Smooth jewel. Net Ea.**47c**

Miniature Bayonet Type
No. 147-403—Faceted jewel. Net....**50c**
No. 147-404—Smooth jewel. Net Ea.**50c**

BRACKETS



BRACKET UP — CLIP BRACKET DOWN — BRACKET DOWN

Both terminals insulated on all types. Metal parts heavily nickel plated. Terminals tin plated for easy soldering.

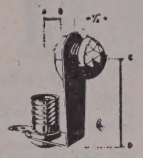
Miniature Screw Base
No. 147-600—Bracket down. Net Ea.**10c**
No. 147-601—Bracket up. Net Each.**10c**
No. 147-640—Clip bracket down. Net **12c**
No. 147-641—Clip bracket up. Net..**12c**

Miniature Bayonet Base
No. 147-610—Bracket down. Net Ea.**12c**
No. 147-611—Bracket up. Net Each.**12c**
No. 147-630—Clip bracket down. Net **14c**
No. 147-631—Clip bracket up. Net..**14c**

Candelabra Screw Base
No. 147-620—Bracket down. Net Ea.**11c**
No. 147-621—Bracket up. Net Each.**11c**

Sockets and Jewel Assemblies

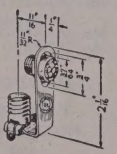
½" JEWEL—NO. 10 TYPE



For No. 10 and 10B, miniature screw or bayonet base of any voltage (tubular preferred). Use type G3½ bulb for No. 10G. Any SC candelabra bayonet base for No. 10H. Mounts in 7/16" hole on panels up to ¼" thick. JEWEL: diamond cut (faceted); amber, blue, yellow, green, ruby, milk white. Smooth or frosted jewels also available. SPECIAL FINISHES: Chrome, Black, Nickel, Statuary Bronze. Nos. 10B and 10H have slotted holes to perm t adjustment for best position of jewel.

Drake No.	Style Socket	Net Each
10	Miniature Screw	29c
10B	Miniature Bayonet	31c
10H	SC Candelabra Bayonet	33c
10G	Miniature Bayonet	30c

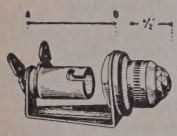
NO. 10C TYPE



An inexpensive candelabra screw base jewel light assembly that is Underwriters Approved for 75 watt 125 volt service. Especially suited for applications involving minimum space behind panel, and replacement from front is not necessary. Mounting bracket has slotted hole to facilitate adjustment for placing lamp filament directly behind the jewel. Mounts in 7/16" hole, thicknesses up to ¼". Will house any candelabra screw lamp. COLORS: Amber, Blue, Colorless, Green, Ruby, White and Yellow. Jewel assembly is burnished nickel. All other parts cadmium. Glass finishes available: faceted, smooth plain, smooth, frosted, smooth.

Drake No. 10C—Net Each.....**35c**

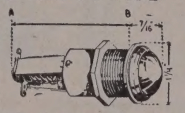
NO. 20 TYPE



Lamps Required: Miniature T3¼ tubular, G3½ globular or others of same overall length. Lamp removable from front of panel. Mounts in 11/16" hole. JEWEL: Diamond cut; Amber, Blue, Green, Ruby, Milk White, Yellow. Smooth or frosted jewels available.

Drake No.	Style Socket	Net Each
20 30 40	MINIATURE BAYONET	46c
20S 30S	MINIATURE SCREW	44c

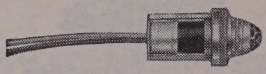
1 INCH JEWEL NO. 75 TYPE



Has a "slip-fit" bezel. All parts burnished cadmium plated except bezel which has a highly polished chrome finish. Mounts in 1" diameter hole on panels up to ½" thick. **Rating:** Nos. 175 and 275 are tested on 110 volts. Nos. 75 and 375 will withstand a voltage breakdown of 1000 v. **Lamps:** The No. 75 is designed to house Mazda 115 volt, 6 watt, S6 or C7 candelabra screw base lamps. Will house any other candelabra screw base lamp up to 1⅞" long and ⅞" in diameter. The Nos. 175 and 275 are designed to house any miniature lamps up to 1 3/16" long x ⅞" diameter. No. 375 is designed for single contact candelabra bayonet base to 1 5/16" x ⅞". **Disc Colors:** Amber, Blue, Colorless, Green, Red, White, Yellow.

Drake No.	Style Socket	Net Each
75	Candelabra	$1.09
175	Miniature Screw	1.03
275	Miniature Bayonet	1.04
375	SC Candelabra Screw	1.06

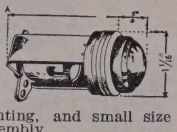
JEWEL LIGHTS WITH WIRE LEADS
No. 520 Type



For practically infallible performance on high quality equipment. Two connections at pilot light terminals eliminated—there can be no shorting. Other styles are also available.

Drake No.	Style Socket	Net Each
520 550 5275	WITH WIRE LEADS	$0.62 .75 1.16

¾" JEWEL—NO. 60 TYPE
Has a ¾" jewel in a polished chrome "slip-fit" bezel.



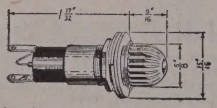
Has a ¾" jewe in a polished chrome "slip-fit" bezel. Supplied with three fibre washers which compensate for panel thickne s. Its sturdy construction, ease of mounting, and small size make it an ideal assembly.

SPECIFICATIONS

Mounting: Mounts in 13/16" diameter hole on panels 0" to ¼" thick. **Rating:** Miniature bayonet and screw types are tested on 110 volts. Candelabra screw types will withstand a voltage breakdown of 1,000 volts. **Colored Discs:** The No. 60 types are regularly supplied with colorless, smooth glass frosted on back behind which is placed a colored disc. The advantage of this method is that the glass appears white until the lamp is lighted. **Colors:** Amber, Blue, Colorless, Green, Red, White, or Yellow. **Glass:** Available in faceted; smooth plain (no frosting); smooth, frosted on back only. Smooth plain glass recommended for use with neon glow lamps.

Drake No.	Style Socket	Net Each
60	Miniature Bayonet	93c
60N	For NE45 Lamp	98c
60S	Miniature Screw	92c
60T	For T4½ Lamp	99c

NEON LAMP SOCKETS TYPE NO. 101N



These totally enclosed pilot lights meet Underwriters' specifications. They are very rugged and particularly adapted to use in equipment subjected to extreme vibration and atmospheric conditions. The 101N assembly is designed for use with the NE51 neon glow lamp. With proper current limiting resistors (built into the socket of the 101N) the neon glow lamps can be operated at any voltages over 65 volts AC and 90 volts DC. Merely specify the operation voltage. Stock units have 100,000 ohm resistors for 115 volt operation. 1/25 watt. The transparent plastic cap is fluted on the inside to multiply the images of the glowing electrodes of the neon lamp. It actually has three times the visibility of the ordinary plain cap. It is advisable to use the dome with 180° visibility. **No. 101** and **100** will house No. 47 incandescent lamp or any other miniature bayonet T3¼ lamp of less than 1 watt power consumption. Equipped with a translucent cap. **Mounting:** Mounts in 11/16" hole on panels up to ⅜" thick. Breakdown voltage, 2000 volts. **Transparent Colors:** Amber, Colorless, Red, Milky White. **Translucent Colors:** Blue, Green, Red, Milky White and Yellow. **Plating:** Burnished nickel plated panel hardware.

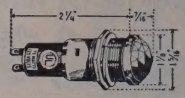
Drake No. 100—Net Each.....**80c**

Drake No. 101N—Net Each.....**85c**

Drake No. 101—Net Each.....**72c**

185-54C

1 INCH JEWEL NO. 75AP TYPE



Heavy duty candelabra screw base assembly designed to be used on rugged equipment. Panel hardware highly finished chrome plate. All other parts cadmium plated. Underwriters' Approved for 125 volt, 75 watt service. Connections made to solder terminals. **Mounting:** 1" dia. hole on panels up to ½" thick. **Lamps:** Designed to house Mazda 115 volt, 6 watts, S6, candelabra screw base lamp. Will house any other lamp of same base which has length of less than 1⅞" and dia. of less than ⅞". Will not house C7 bulbs. **Colors:** Amber, Blue, Colorless, Green, Ruby, Milk White, Yellow. Faceted, smooth or frosted jewels available.

Drake No. 75AP—Net Each.....**$1.32**

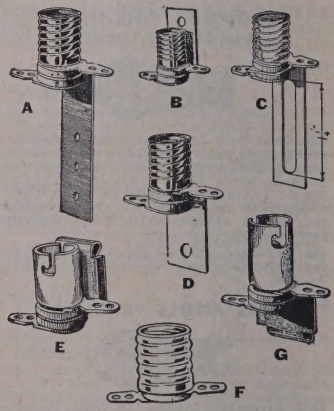
½" JEWELS

Slotted or threaded; faceted, smooth or frosted. Amber, Blue, Crystal, Green, Ruby, Milk White, Yellow. Chrome or special finishes.

Drake No.	Type	Net Each
16*	⅜" shank—7/16" OD	19c
22 23	⅛" shank—⅜" OD 5/16" shank—⅜" OD	17c

*With nut.

DIAL LIGHT ASSEMBLIES



Cadmium plated brackets. Terminal lugs of tinned brass. Approved coil spring construction on all bayonet type sockets. Furnished with insulating washers.

MINIATURE SCREW

Drake No.	Figure	Net Each
156B-CH	A	9c
109AH	B	9c
108CH	C	9c
109CH	D	9c
103AH	E	9c
117H	F	7c
104CH	G	9c

MINIATURE BAYONET

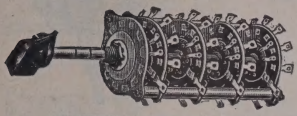
256B-CH	A	10c
208CH	C	10c
209CH	D	10c
203AH	E	10c
204CH	G	10c

CANDELABRA SCREW

456B-CH	A	11c
408CH	C	11c
409CH	D	11c
403AH	E	11c
404CH	G	11c
417H	F	7c

Mallory Special Purpose Switches

MULTI-SECTION ROTARY SWITCHES



TYPES 1200L-1300L

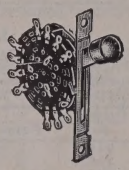
For test equipment, meter switching and low current industrial applications. All contacting members are silver plated. This assures low contact resistance. Phosphor-bronze springs insure long life and prevent failures.

Insulated with high-grade phenolic resin. All switches have ½" spacing between sections excepting the three and four section which have 1". Supplied with ⅜" dia., ⅜" long brass bushing and 2" long shaft grooved for cutting. Require 7/16" mtg. hole Bar knob, locknut and washer included. Average shipping weight 8 oz.

Short. Type Mallory No.	Non-Short. Type Mallory No.	No. of Circuits Per Section	No. of Circuits Per Switch	No. of Positions	No. of Sections or Gangs	Net Each
1211L	1311L	1	1	2 to 11	1	.93
1215L*	1315L*	2	2	2 to 5	1	.99
1213L*	1313L*	3	3	2 to 3	1	1.08
1212L*	1312L*	4	4	2 to 2	1	1.14
1221L	1321L	1	2	2 to 11	2	1.38
1225L*	1325L*	2	4	2 to 5	2	1.56
1223L*	1323L*	3	6	2 to 3	2	1.68
1222L*	1322L*	4	8	2 to 2	2	1.77
1231L	1331L	1	3	2 to 11	3	1.86
1235L*	1335L*	2	6	2 to 5	3	1.98
1241L	1341L	1	4	2 to 11	4	2.37
1245L*	1345L*	2	8	2 to 5	4	2.76
1251L	1351L	1	5	2 to 11	5	2.94
1256L	1356L	2	10	2 to 6	5	3.63
1261L	1361L	1	6	2 to 11	6	3.48
1266L	1366L	2	12	2 to 6	6	4.44

*These switches are provided with an "off" position which is in addition to the number of positions listed in the fifth column.

LEVER ACTION SWITCHES TYPES 5000—6000—7000



Particularly adapted to centralized radio, sound distribution, public address equipment and intercommunicating systems. Housing and bracket are one integral part, prevents warping or mis-alignment of contacts. Terminals secured by "wrap-around" method to high grade phenolic resin. 5000 series bracket have elongated holes spaced 2¾" to 2⅜" apart. 6000 and 7000 series round holes spaced 1⅜" apart. Can be mounted in multiple with ¾" between lever arm centers. Knob and two 6-32 bolts and nuts furnished. Shipping weight 4 oz.

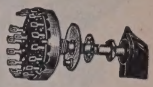
Mallory No. Shorting Type	Mallory No. Non-Short. Type	No. of Poles or Circuits	No. of Positions or Contacts	Net Each
POSITIVE INDEXING				
5124	5224	2	4	$0.90
6142	6242	4	2	.75
6143	6243	4	3	.75
SPRING RETURN				
7122-L	7222-L	2	2	.75
7123-C	7223-C	2	3	.75
7142-L	7242-L	4	2	.75
7143-C	7243-C	4	3	.75
7162-L	7262-L	6	2	.75

SINGLE PUSH-BUTTON SWITCHES TYPE 2000

For a wide variety of applications requiring momentary or permanent contact. Especially adapted for use in laboratories, on test panels, in meter circuits, etc. Locking types keep circuit closed until button is pulled out. Non-locking types maintain contact only while button is held in depressed position. Phosphor bronze springs, silver plated contacts. Steel frame cadmium plated. Mount in 7/16" hole on panels up to ¼" thick. Polished resin knob, nut and lockwasher furnished. Shipping weight 4 oz.

Mallory No.	Circuit Arrangement	Net Each
2001	S. P. Make contact—Non-locking	$0.78
2001-L	S. P. Make contact—Locking	.78
2002	S. P. Break contact—Non-locking	.78
2002-L	S. P. Break contact—Locking	.78
2003	S. P. Double-Throw—Non-locking	.84
2003-L	S. P. Double-Throw—Locking	.84
2004	2-Pole—Make two contacts—Non-locking	.96
2004-L	2-Pole—Make two contacts—Locking	.96
2005	2-Pole—Break two contacts—Non-locking	.96
2005-L	2-Pole—Break two contacts—Locking	.96
2006	2-Pole—Double-Throw—Non-locking	1.17
2006-L	2-Pole—Double-Throw—Locking	1.17
2007	2-Pole—Make two—Break one—Non-locking	1.05
2007-L	2-Pole—Make two—Break one—Locking	1.05
2008	Dble-Throw—Make before break—Non-lock.	1.32
2008-L	2-Pole—Double-Throw—Make before break —Locking	1.32

SINGLE SECTION ROTARY SWITCHES

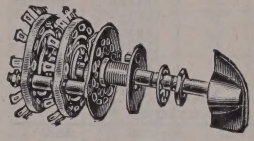


TYPES 3100J 3200J

For use in small receivers as tone controls, band selector and antennae switching; also for meter switching in test equipment and other devices where space is a factor. Two sizes available: 1¼" dia. 30° indexing and 1 11/16" dia. 20° indexing. Insulated with high-grade phenolic resin. Supplied with ⅜" dia., ⅜" long brass bushing and 2" long shaft grooved for cutting. Requires 7/16" mounting hole. Bar knob, locknut and washer included. Average shpg. wt. 4 oz.

Short. Type Mallory No.	Non-Short. Type Mallory No.	No. of Circuits	No. of Positions	Diam. of Base	Adjustable Stop	Net Each
3115J	3215J	1	5	1¼"	No	$0.69
31112J	32112J	1	12	1¼"	No	.69
3122J	3222J	2	2	1¼"	No	.69
3123J	3223J	2	3	1¼"	No	.69
3126J	3226J	2	6	1¼"	No	.69
3134J	3234J	3	4	1¼"	No	.72
3142J	3242J	4	2	1¼"	No	.72
3143J	3243J	4	3	1¼"	No	.72
31117J	32117J	1	2 to 17	1 11/16"	Yes	1.08
3129J	3229J	2	2 to 9	1 11/16"	Yes	1.08
3136J	3236J	3	2 to 6	1 11/16"	Yes	1.17
3163J	3263J	6	2 to 3	1 11/16"	Yes	1.17

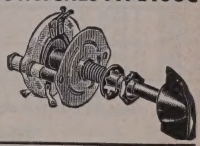
CERAMIC SECTION SELECTOR SWITCHES TYPE 170L



Ideal for highly efficient, critical r-f circuit applications in radio receivers and low-power transmitter circuits. Ceramic insulation minimizes r-f losses and retards moisture absorption. Adjustable stop is feature of index assembly permitting choice of 2 to 11 positions. All current carrying parts are heavily silver plated. Two section switch has ½" spacing between sections, three section 1". Supplied with ⅜" dia., ⅜" long brass bushing and 2" long shaft grooved for cutting. All types non-shorting. Bar knob, locknut and washer included Average shipping weight 7 oz.

Mallory No.	Number of Gangs	Number of Circuits Per Gang	Number of Positions	Net Each
172C	1	1	2 to 11	$1.35
173C	1	2	2 to 5	1.35
174C	1	3	2 to 3	1.35
176C	2	1	2 to 11	2.10
177C	2	2	2 to 5	2.10
178C	2	3	2 to 3	2.10
180C	3	1	2 to 11	3.00
181C	3	2	2 to 5	3.00

CERAMIC SECTION "HAMBAND" SWITCHES TYPE 160C



A special ceramic switch designed for transmitter circuits up to 1000 V. D. C. with power up to 100 watts. Ceramic insulation is employed in both sections and spacers 90° indexing between positions, and capable of continuous rotation. Supplied with ⅜" dia., ⅜" long brass bushing and 2" long shaft grooved for cutting. Bar knob, locknut and washer included. Shipping weight 8 oz.

Mallory Number	No. of Sections	Circuits	Spacing Between Sections	Contacts Per Circuit	Net Each
161C	1	1	.....	4	$1.35
162C	2	2	2"	4	2.10
163C	3	3	1"	4	3.00
164C	4	4	1"	4	3.60
165C	5	5	1"	4	4.50

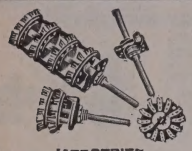
MULTIPLE PUSH-BUTTON SWITCHES TYPE 2100

For applications requiring a device for making, breaking, or transferring multiple circuits in automatic station selector tuning, inter-com systems, telephone and annunciator systems, test equipment, etc. ⅝" spacing between centers of plungers. Furnished with brown resin knobs, bronze escutcheon plate with blank inserts and transparent strip for windows. Average shipping weight 11 oz.

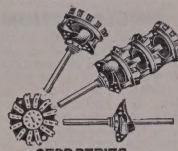
Mallory Number	Number of Buttons	Type	Net Each
2164	4	Circuit Closing	$3.15
2166	6	Circuit Closing	3.93
2168	8	Circuit Closing	4.74
2184	4	Circuit Transfer	3.15
2186	6	Circuit Transfer	3.93
2188	8	Circuit Transfer	4.74
2194	4	†Circuit Transfer	3.15
2196	6	†Circuit Transfer	3.93
2198	8	†Circuit Transfer	4.74

†Non-shorting.

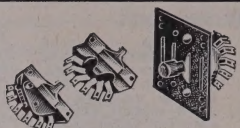
Centralab *Rotary and Lever Switches*



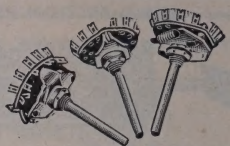
1400 SERIES



2500 SERIES



LEVER ACTION



1443 1450 1451

1400 SERIES—LAMINATED PHENOLIC INSULATION

Extremely compact design. Mounting bushings ⅜" x 32 thd. x ⅜" long. Shafts 1⅞" from end of bushing. Positive 30° index with adjustable stop. Revisions or corrections easily made due to availability of all parts separately. Packaged with mounting nut, lockwasher, 1¼" black bar knob.

SHORTING TYPE CRL No.	Poles	Positions	Sec.	NON-SHORTING TYPE CRL No.	Net Each
1400	1	2 to 6	1	1401	$0.75
1402	1	2 to 11	1	1403	.90
1404	2	2 to 5	1	1405	.90
1406	3	2 to 3	1	1407	1.05
1408	4	2	1	1409	1.05
1410	2	2 to 6	2	1411	1.20
1412	2	2 to 11	2	1413	1.35
1414	4	2 to 5	2	1415	1.50
1416	6	2 to 3	2	1417	1.65
1418	8	2	2	1419	1.65
1420	3	2 to 6	3	1421	1.65
1422	3	2 to 11	3	1423	1.80
1424	6	2 to 5	3	1425	1.95
1426	4	2 to 6	4	1427	2.10
1428	4	2 to 11	4	1429	2.25
1430	8	2 to 5	4	1431	2.70

LAMINATED PHENOLIC SECTIONS ONLY

CRL No. Shorting	CRL No. Non-Short.	Poles Per Section	No. of Positions	Net Each
A	H	1	2 to 6	30c
B	J	1	2 to 11	45c
C	K	2	2 to 5	45c
D	L	3	2 to 3	60c
E	M	4	2 only	60c
EE	.....	4	2 to 3	90c
F*	.....	1	2 to 5	45c
G†	.....	1	2 to 10	45c

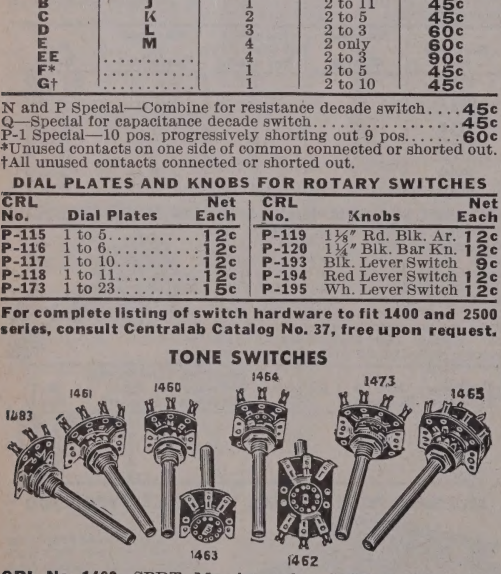
N and P Special—Combine for resistance decade switch....45c
Q—Special for capacitance decade switch.....45c
P-1 Special—10 pos. progressively shorting out 9 pos.....60c
*Unused contacts on one side of common connected or shorted out.
†All unused contacts connected or shorted out.

DIAL PLATES AND KNOBS FOR ROTARY SWITCHES

CRL No.	Dial Plates	Net Each	CRL No.	Knobs	Net Each
P-115	1 to 5	12c	P-119	1½" Rd. Blk. Ar.	12c
P-116	1 to 6	12c	P-120	1½" Blk. Bar Kn.	12c
P-117	1 to 10	12c	P-193	Blk. Lever Switch	9c
P-118	1 to 11	12c	P-194	Red Lever Switch	12c
P-173	1 to 23	15c	P-195	Wh. Lever Switch	12c

For complete listing of switch hardware to fit 1400 and 2500 series, consult Centralab Catalog No. 37, free upon request.

TONE SWITCHES



CRL No. 1460—SPDT. May be used as SPST Positive index. Shorting contacts. Net Each.....$0.45
CRL No. 1463—Same as above except has spring return index and non-shorting contacts. Net Each.....$0.45
CRL No. 1461—SP. Three position selector switch. Positive index. Shorting contacts. Net Each.....$0.45
CRL No. 1462—DPDT. May also be used as SPDT or SPST. Positive index. Shorting contacts. Net Each.....$0.45
CRL No. 1464—Same as above except has spring return index and non-shorting contacts. Net Each.....$0.60
CRL No. 1465—SP. Four position selector switch with SPST AC line switch attached. Has three active positions and one "off" Use for replacement in Philco, RCA, GE and other late model receivers. Positive index. Shorting contacts. Net Each.....$0.75
CRL No. 1473—Two pole, three position. Positive index. Shorting contacts. Net Each.....$0.60
CRL No. 1483—Specifically designed to be used with auxiliary rear seat auto radio speakers. Permits the operation of either speaker separately or both simultaneously. Positive index. Shorting contacts. Extra long shaft. Net Each.....$0.45

2500 SERIES—STEATITE INSULATION

Made of highest quality (grade L-5) Steatite insulation. Meet critical requirements of r. f. circuit applications. Bushing ⅜" x 32 thd. x ⅜" long. Shaft 1⅞". Positive 30° index with adjustable stop. Packaged with mounting nut, lockwasher and 1¼" black bar knob.

SHORTING TYPE CRL No.	Poles	Positions	Sec.	NON-SHORTING TYPE CRL No.	Net Each
2500	1	2 to 6	1	2501	$1.35
2502	1	2 to 11	1	2503	
2504	2	2 to 5	1	2505	
2506	3	2 to 3	1	2507	
2510	2	2 to 6	2	2511	2.10
2512	2	2 to 11	2	2513	
2514	4	2 to 5	2	2515	
2516	6	2 to 3	2	2517	
2520	3	2 to 6	3	2521	3.00
2522	3	2 to 11	3	2523	
2524	6	2 to 5	3	2525	

SEPARATE STEATITE SECTIONS

CRL No. Shorting	CRL No. Non-Short.	Poles Per Section	No. of Positions	Net Each
T	X	1	2 to 6	75c
U	Y	1	2 to 11	
R	RR	2	2 to 5	
S	SS	3	2 to 3	
V	Z	4	2	
GG*	.....	1	2 to 10	

*Unused contacts connected and shorted out.

LEVER ACTION SWITCHES

Coil spring and cam index design provide guaranteed minimum life 150,000 switching cycles. Smooth "clean" action. Coil type index spring. Furnished with black paddle-type knob. Rating 6 watts.

SHORTING TYPE CRL No.	Poles	Positions	Index	NON-SHORTING TYPE CRL No.	Net Each
1452	2	3	Positive	1454	75c
1453	2	3	Spring Return	1455	
1456	4	2	Spring Return	1457	
1459	4	2	Positive	1458	
1466	2	3	Positive and Spring Return	1467	

Mounting Plates for Lever Switches—Type A made of .035" die cut steel, black crackle finish. Provides ¾" spacing between switches. Type B for use in electrical outlet boxes. Chrome plated steel with mounting holes 3⅛" between centers.

Type A—Height 2⅝" CRL No.	No. Switches	Lgth. In.	Net Each	Type B CRL No.	No. Switches	Net Each
P-1755	1	¾	21c	P-221	1	36c
P-1756	2	1½	24c	P-222	2	45c
P-1757	3	2¼	30c	Size: 2¾" x 4½" overall.		
P-1758	4	3	36c	¾" spacing between switches.		
P-1759	5	3¾	45c			

ROTARY ACTION FLAT SWITCHES

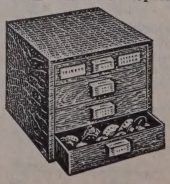
Type 1443—"23 CLIPPER" single pole, 23 positions, shorting type contacts. 15° positive index. Requires 1" behind panel. Double wiping silver plated contacts. With dial plate. Net **$1.95**

Type 1450—"ECONO-SWITCH". A 4 pole, 2 position economically designed switch. Requires only ⅝" depth behind panel. Can be used as SPST, SPDT, DPDT, 3PST, 4PST, or 4PDT. Positive non-shorting leaf type index. Laminated phenolic insulation. Net Each.....60c

Type 1451—"PERMA-SWITCH." Long life coil spring switch similar in style to the type 1450 but with 4 pole 2 positions. Designed for hard life and long use in test equipment, etc. Net Each.....$1.05

NEW ALL PURPOSE INTERCOM SWITCHES

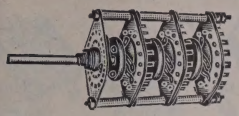
Type 1448-1449—Six pole three position, will fit practically every intercom application in use. Both units have replaceable coil spring indexing assuring 50,000 cycles minimum.
CRL No. 1448—Spring return one side. Net Each.....$1.35
CRL No. 1449—Spring return both sides. Net Each.....$1.35



ROTARY SWITCH KIT

1500 Switch Kit—A four drawer cabinet containing an adequate supply of sections and indexes to custom build two 4 section switches, two 3 section, four 2 section, six 1 section, one 2 section condenser decade and one 1 section resistor decade switch. For laboratories, engineers, hams and experimenters needing specialized switching arrangements. Net Each.....$30.00

Centralab Rotary Switches



NEW SERIES JV-9000 MEDIUM DUTY POWER SWITCH

Designed to meet the requirements of medium high power, excellent accuracy, and long life needed in transmitter, industrial control and balancing, laboratory testing, power supply converter and many other special applications. Rated at 750 watts sea level (7½ amps, 60 cycle, 115 volts AC) 375 watts at 35,000 feet. Has been used up to 20 megacycles. Breakdown point 3,000 volts RMS—60 cycle. Solid silver contacts for low loss operation at high frequencies and high voltages. Stainless steel roller wheels assure pin-point accuracy and smooth non-stall rotation. Available in "shorting" and "non-shorting" types. Shorting type makes before break—non-shorting type breaks before make.

Available in 1 pole 2 to 17 positions per section or 3 pole 2 to 5 positions per section and up to 6 sections. Set screw type adjustable stop limits the number of positions to requirements. Sections and index assemblies available separately. Switches and indexes include all hardware, mounting nut and lockwasher. Tie rods extend beyond switch at both ends to aid in locating.

SERIES JV-9000 ROTARY SWITCHES

No. Shorting	No. Non-Shtg.	Poles to Section	No. of Sections	Total Poles	Pos.	Net Each
JV-9000	JV-9001	1	1	1	2–17	$ 7.20
JV-9002	JV-9003	3	1	3	2–5	7.20
JV-9004	JV-9005	1	2	2	2–17	12.60
JV-9006	JV-9007	3	2	6	2–5	12.60
JV-9008	JC-9009	1	3	3	2–17	18.00
JV-9010	JV-9011	3	3	9	2–5	18.00
JV-9012	JV-9013	1	4	4	2–17	23.40
JV-9014	JV-9015	3	4	12	2–5	23.40
JV-9016	JV-9017	1	5	5	2–17	28.80
JV-9018	JV-9019	3	5	15	2–5	28.80
JV-9020	JV-9021	1	6	6	2–17	34.20

SERIES JV-9000 SECTIONS

No. Shorting	No. Non-Shorting	Number Poles	Poles to Section	Number Positions	Net Each
KV-8	KVN-8	1	1	2–17	$5.40
KV-9	KVN-9	3	3	2–5	5.40

SERIES JV-9000 DIAL PLATES

No. P-230 Dial Plate. 2¾″ diameter, 20 degree markings, marked 1 to 5. Net Each..... 18c

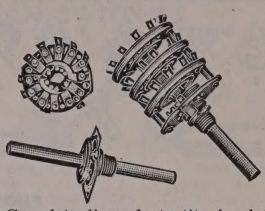
No. P-231 Dial Plate. 2¾″ diameter, 20 degree markings, marked 1 to 17. Net Each..... 18c

SERIES JV-9000 INDEX

No. KV-7 Index Assembly. Includes shaft, tie rods, spacers, nuts and lockwashers, adjustable stop pin, 2″ black bar knob and dial plate. Net Each..... $3.60

SERIES PA-2000 INDEX ASSEMBLIES

No.	Degree Index	Rear Shaft Length	Suggested No. Sections	Net Each
PA-300	30	2″	1 or 2	$0.90
PA-301	30	4″	3 or 4	1.20
PA-302	30	6″	5 or 6	1.50
PA-304	60	2″	1 or 2	.90
PA-305	60	4″	3 or 4	1.20



SERIES PA-2000 MINIATURE ROTARY SWITCHES STEATITE INSULATION

Complete line of steatite insulated miniature rotary switches with the following features: 1-piece shaft construction; adjustable stop allows selection of positions or continuous rotation; nickel plated brass shaft, bushing, tie rods and nuts; special treatment meets 50 hour salt spray tests; available as complete switches or separate assemblies. Excellent R.F. characteristics. Contacts are double wiping silver plated, shaft nickel plated brass 1⅞″ from bushing, index available 30 and 60 degree with adjustable stop, mounting is single hole and optional locating lug, bushing ⅜-32 thread, ⅜″ long. Includes mounting nut, lockwasher and 1¼″ black bar knob.

SERIES PA-2000 MINIATURE ROTARY SWITCHES

No. Shorting	No. Non-Shtg.	Poles to Section	No. of Sections	No. Poles	Total Pos.	Net Each
PA-2000	PA-2001	1	1	1	2–12	$1.50
PA-2002	PA-2003	2	1	2	2–6	1.56
PA-2004	PA-2005	1	2	2	2–12	2.25
PA-2006	PA-2007	3	1	3	2–5	1.65
PA-2008	PA-2009	1	3	3	2–12	3.00
PA-2010	PA-2011	2	2	4	2–6	2.34
PA-2012	PA-2013	1	4	4	2–12	3.75
PA-2014	PA-2015	5	1	5	2–3	1.71
PA-2016	PA-2017	1	5	5	2–12	4.50
PA-2018	PA-2019	6	1	6	2	1.71
PA-2020	PA-2021	3	2	6	2–5	2.40
PA-2022	PA-2023	2	3	6	2–6	3.15
PA-2024	PA-2025	1	6	6	2–12	5.25
PA-2026	PA-2027	2	4	8	2–6	3.90
PA-2028	PA-2029	3	3	9	2–5	3.15
A-2P030	PA-2031	5	2	10	2–3	2.55
A-2P032	PA-2033	2	5	10	2–6	4.65
A-2P034	PA-2035	6	2	12	2	2.55
A-2P036	PA-2037	2	6	12	2–6	5.40
A-2P038	PA-2039	5	3	15	2–3	3.45
A-2P040	PA-2041	6	3	18	2	3.45

SERIES PA-2000 STEATITE SECTIONS

No. Shorting	No. Non-Shorting	Number of Poles	Number of Positions	Net Each
PA-0	PA-1	1	2–12	$0.81
PA-2	PA-3	2	2–6	.81
PA-4	PA-5	3	2–5	.90
PA-6	PA-7	5	2–3	.90
PA-8	PA-9	6	2	.90
PA-10	.....	1	2–5	.81
PA-11*	PA-18*	1	2–11	.81
PA-12**	.....	1	2–10	.81

*All unused contacts connected and shorted out. **1 off, 9 progressively shorting positions. All others with unused contacts 1 side of common connected and shorted out.

No. PA-17 60 Degree Indexing Section. 1 pole, 2-6 positions. Net Each..... 81c

No. PA-16 Silver Clip and Contact, 30 degree indexing, 1 pole, 2-11 positions. Net Each..... $1.50

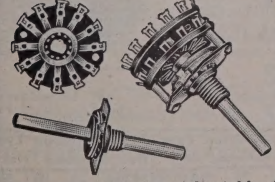
No. PA-14 Silver Clip and Contact, 30 degree indexing, 2 pole, 2-5 positions. Net Each..... $1.50

No. PA-15 Silver Clip and Contact, 30 degree indexing 4 pole, 2 positions. Net Each..... $1.50

No. P-319 Adjustable Stop Plate. Net Each..... 15c

No. P-320 Intersection Shield..... 15c

NEW SERIES PA-1000 MINIATURE ROTARY SWITCHES

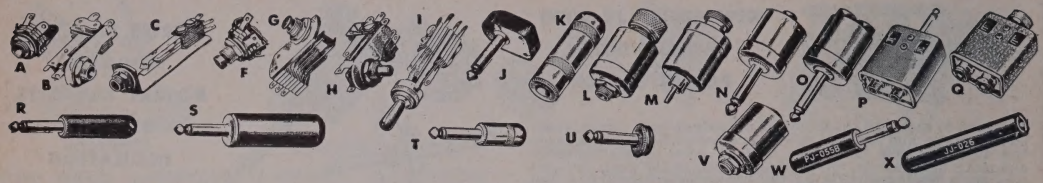


Complete new line of laminated phenolic insulated rotary switches, basically matching the 2000 series in physical size and the 1400 series in switching. Index assemblies and hardware are same as for 2000 series. Phenolic insulation used in this series actually exceeds Phenolic Standards Grade XXXP due to high resin content. No wax, varnish or surface additives required. One piece shaft construction for accurate indexing. Adjustable stop allows selection of position or continuous rotation. Steatite spacers are used with nickel-plated brass shafts, bushings, tierods and nuts. All other metal parts treated for passing 50 hour salt spray test.
Insulation: High strength, high resin laminated phenolic. Low moisture absorption, insulation resistance dry—121,000 megohms. **Contacts:** Double wiping silver-plated spring brass. **Rating:** General use, 6 watts, excellent RF characteristics. **Shaft:** Nickel-plated brass 1⅞″ long F.E.O.B., 2¼″ from mounting surface. **Mounting:** Single hole and optional locating lug. **Index:** 30° or 60° with adjustable stop.

No. Shorting	No. Non-Shtg.	Poles to Section	No. of Sections	No. Poles	Total Pos.	Net Each
PA-1000	PA-1001	1	1	1	2-11	$1.35
PA-1002	PA-1003	2	1	2	2-5	1.35
PA-1004	PA-1005	1	2	2	2-11	1.80
PA-1006	PA-1007	3	1	3	2-3	1.35
PA-1008	PA-1009	1	3	3	2-11	2.25
PA-1010	PA-1011	4	1	4	2	1.35
PA-1012	PA-1013	2	2	4	2-5	1.80
PA-1014	PA-1015	1	4	4	2-11	2.70
PA-1016	PA-1017	1	5	5	2-11	3.15
PA-1018	PA-1019	3	2	6	2-3	1.80
PA-1020	PA-1021	2	3	6	2-5	2.25
PA-1022	PA-1023	1	6	6	2-11	3.60
PA-1024	PA-1025	4	2	8	2	1.80
PA-1026	PA-1027	2	4	8	2-5	2.70
PA-1028	PA-1029	4	3	12	2	2.25
PA-1030	PA-1031	2	5	10	2-5	3.15
PA-1032	PA-1033	2	6	12	2-5	3.60
PA-1034	.....	1	1	1	2-10	1.35

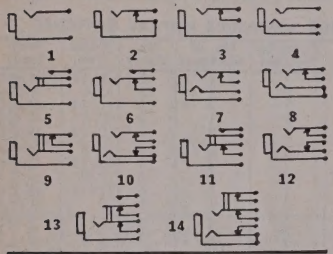
Mounting nut, lockwasher and 1¼″ black bar knob are included with all above switches.

SWITCHCRAFT INC. Electronic Components



PHONE JAX

"Littel-Jax" (Fig. A)—Notched washers hold springs and lugs; "V-bend" in tip spring holds mating plug; minimum space requirements. ⅜" hole, panels to 5/16".
"SF-JAX" (Fig. B)—Short frame type, requires minimum panel depth; ⅜" hole in panels to 3/16" thick.
"LF-JAX" (Fig. C)—Long frame type. 3" deep, ⅜" hole in panels up to ¼" thick.



"LITTEL-JAX" No.	"LITTEL-JAX" Net	"SF-JAX" No.	"SF-JAX" Net	"LF-JAX" No.	"LF-JAX" Net	Schem.
11	24c					
C-11	36c					
S-11	27c	21	33c	31	39c	1
		22	42c	32	51c	2
12A	27c					
C-12A	45c	22A	42c	32A	51c	3
12B	33c					
C-12B	42c					
S-12B	39c	22B	42c	32B	51c	4
		23	51c	33	57c	5
		23A	51c	33A	57c	6
13B	45c					
S-13B	57c	23B	51c	33B	57c	7
		23C	51c	33C	57c	8
		23E	51c	33E	57c	9
		24	57c	34	66c	10
		24A	57c	34A	66c	11
		24B	57c	34B	66c	12
		25	69c	35	75c	13
		26	75c	36	84c	14

*Military types.

"MINI-MIX"

Accommodates 2 hi-Z inputs. Separate gain controls for mixing recessed inside housing, located directly "in line" with inputs. Ideal for use with recorders, amplifiers, musical instruments, etc. Shielded, brown finished case, 2 1/16" x 1 13/16" x 1 1/16". Nickel trim.
No. 310 (Fig. P)—Phone jack inputs with standard phone plug outputs. Net..... $4.77
No. 320 (Fig. Q)—Mike connector inputs and output mating with standard mike connectors. Net Each..... $4.77

"LITTEL-PLUG" & "EXTENSION JAX"

Designed for industry and the Armed Forces. Molded construction. Jack (**Fig. X**) per JAN-J-641; Plugs (**Fig. W**) per JAN-P-642.

No.	Description	Handle	Net
440	2-cond., screw term. Type PJ-055B (PL-55)	Black	$0.84
445	Same, Type PJ-055R	Red	.84
470	2 cond., screw term. Type PJ-055M (PL-125)	Metal	1.20
480	3-cond., screw term. Type PJ-068 (PL-68)	Black	2.16
820	2-cond., screw term. Type JJ-026 (JK-26)	Black	1.20

P-1074-I—Strain relief clamp, nickel plated brass. Pkg. of 25, Net..... 51c

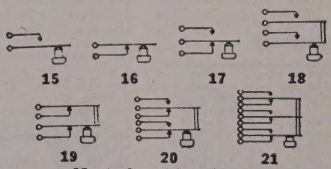
PHONE PLUGS

"Littel-Plug" (Fig. R)—New; fits standard jacks; clamp terminal, perfect for metal braid. Handles, 1 5/8" L., ½" diam.
Standard Plug (Fig. S)—Conventional design, bakelite or metal handles, 2 1/16" L., 11/16" OD, except 90 and 160, 1" metal handles. Exterior metal, bright nickel.
"Lug Plug" (Fig. T)—2-conductor, solder term. Tenite handles, 1 5/8" L., ½" OD except 380 with 1" nickel plated handle.
Plug Adapter (Fig. U)—Use with 2501F for standard jacks.

No.	Fig.	Handle	Description	Net
240	R	Black	2-cond., screw	$0.45
245	R	Red	2-cond., screw	.45
270	R	Metal	2-cond., screw	.63
250	R	Black	2-cond., clamp	.42
255	R	Red	2-cond., clamp	.42
280	R	Metal	2-cond., clamp	.60
260	R	Black	3-cond., screw	.72
290	R	Metal	3-cond., screw	.84
267	R	Black	3-cond., clamp	.63
269	R	Red	3-cond., clamp	.63
297	R	Metal	3-cond., clamp	.78
40	S	Black	2-cond., screw	.42
70	S	Metal	2-cond., screw	.72
160	S	Metal	2-cond., screw	.54
44	U	.....	2-cond., screw	.30
60	S	Black	3-cond., lug	.63
90	S	Metal	3-cond., lug	.78
350	T	Black	2-cond., lug	.33
355	T	Red	2-cond., lug	.33
380	T	Metal	2-cond., lug	.42
180	S	Metal	2-cond., screw	.63
288	R	Metal	2-cond., clamp	.63
S-250	R	Black	2-cond., clamp	.45
S-280	R	Metal	2-cond., clamp	.60

PUSH BUTTON & ROTARY SWITCHES

"Littel-Switch" (Fig. F)—Non-locking only. Red button listed, for **Black,** change Nos. to 201, 202 or 203. Low amp.
"FF-Switch" (Fig. G)—Black push button. Non-locking only. 3-amp., 120 volt AC silver non-inductive contacts.
"RS-Switch" (Fig. H)—Locking or non-locking, 2 or 3 position. Same contacts as above. All Models mount in ⅜" hole, panels to ¼" thick.



Neutral position shown.

LITTEL-SWITCH No.	LITTEL-SWITCH Net	FF-SWITCH No.	FF-SWITCH Net	RS-SWITCH No.*	RS-SWITCH Net	Schem.
101	51c	1001	$0.57	2001	60c	15
102	51c	1002	.57	2002	60c	16
103	54c	1003	.66	2003	72c	17
....	....	1004	.72	2004	75c	18
....	....	1005	.72	2005	75c	19
....	....	1006	.87	2006	99c	20
....	....	1009	1.20	....	....	21

"RS-SWITCHES"—3-POSITION TYPES

No.	†	Net	No.	†	Net	No.	†	Net
2034	29	75c	2035	30	75c	2036	31	99c

*Add **L** to Type Number for locking types.
†Schematic, See "LEV-R-SWITCHES"

"SHIELDED JAX" (FIG. V)

No.	Circuit, See Littel-Jax No.	Net
CN-11	11	48c
CN-12A	12A	51c
CN-12B	12B	57c
CN-13B	13B	69c

164X-54A

EXTENSION JAX (FIG. K)

Clamp-type terminal provides cable terminal. Spring tempered nickel silver springs. Terminals mechanically interlock. Bakelite or nickel plated brass handles.

No.	Handle	Description and Type Terminal	Net Each
80	Black	2-cond., screw	$0.69
88	Black	2-cond., lug	.60
120	Shielded	2-cond., screw	.93
128	Shielded	2-cond., lug	.84
830	Black	3-cond., screw	.93
838	Black	3-cond., lug	.84
1230	Shielded	3-cond., screw	1.17
1238	Shielded	3-cond., lug	1.08
S-128	Shielded	(2), special lug	.90

"ADAPTERS"

No.	Description	Net
332	Phone jack input to female mike con. output. (**Fig. L**)	$1.05
334	Phono jack con. input to female mike out. (Not Ill.)	.87
336	Phone jack input to phono plug output. Not Ill.	.87
338	Male mike con. input to phono plug output (**Fig. M**)	.87
342	Dual-purpose binding post/banana jack in to phone out.	1.56
344	Phono jack input to phone plug output. (**Fig. N**)	.87
346	Tip jack input to phone plug output. (**Fig. O**)	1.29

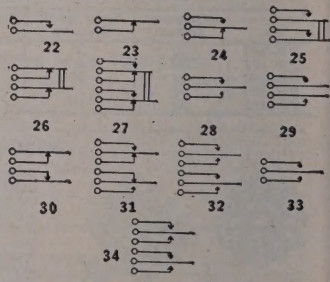
"FLAT PLUG" (FIG. J)

Removable plastic cap; terminals and body mechanically interlocked.

No.	Handle	Description	Net
220	Black	2-cond., screw term.	45c
225	Red	2-cond., screw term.	45c
227	Black	2-cond., lug terminal	42c
229	Red	2-cond., lug terminal	42c
230	Black	3-cond., screw term.	66c
235	Red	3-cond., screw term.	66c
237	Black	3-cond., lug terminal	63c
239	Red	3-cond., lug terminal	63c

"LEV-R-SWITCHES" (FIG. I)

Unusually small, mounts in 15/16" hole in panels to 5/64" thick. Long-life springs, detent action on locking types; 3-amp., 120 volt silver contacts.



Neutral position shown.

Two-Position Type No.*	Schem.	Net	Three Position Type No.*	Schem.	Net
3001	22	$1.17	3033	28	$1.50
3002	23	1.17	3034	29	1.56
3003	24	1.35	3035	30	1.56
3004	25	1.50	3036	31	1.74
3005	26	1.50	3037	32	1.77
3006	27	1.65	....	..	.....

*Add **L** to Type Number for locking types.

INTERCOMM. SWITCHES

3033T—Schematic 33. Net Each.. $1.50
3037T—Schematic 34. Net Each.. 1.77

Switches for All Purposes

HART AND HEGEMAN SWITCHES

TOGGLE SWITCHES

High quality, UL approved. Bakelite insulation, silver plated lug terminals. Shank 5/32" diameter. With mounting nuts. Weight each, 2 oz. SPST rated at 6 amps., 125 volts, or 3 amps., 250 volts. All other switches listed are rated at 3 amps., 125 volts, or 1 amp. at 250 volts.

H & H No.	Poles	Fig.	Net 1-24	Net 25-99
20994-A	SPST	A*	37c	34c
21518-B	SPST	A**	46c	42c
21615-BD	SPST	A†	47c	43c
21350-B	SPDT	A*	47c	43c
30023-B	SPDT	A**	55c	49c
21661 B	SPDT	A†	57c	52c
20902-AM	DPST	A*	67c	60c
20902-AZ	DPST	A**	75c	67c
20902-Q	DPST	A†	77c	69c
20905-Z	DPDT	A*	77c	69c
20905-BT	DPDT	A**	85c	76c
20905-C	DPDT	A†	87c	78c
20994-FN	SPST	B*	37c	37c
21350-BP	SPDT	B*	47c	47c
20902-DN	DPST	B*	67c	67c
20905-GA	DPDT	B*	77c	77c

Shank Length (*) 15/32", (**) 3/4", (†) 1".

ON-OFF SWITCH PLATES

(Not Ill.) Die-cast metal, statuary bronze finish ON-OFF plate. 1/2" center hole for switches with 15/32" shank.
H & H No. 20590-1—10 for **41c.** Net Ea. **5c**

(Not Ill.) Polished aluminum for use with rotary or toggle switches. 1/2" center hole, 1 1/8" diameter.
H & H No. 20590-2—10 for **$1.48.** Net Each..... **16c**

MOMENTARY TOGGLE—FIG. G

Same ratings and dimensions as above. Back connected lug terminals.

H & H No.	Poles	Net 1-24	Net 25-99
31045-FB	SPST	$0.70	$0.64
31057-F	DPDT	1.17	1.16

STANDARD DUTY TYPE TOGGLE SWITCHES

Rated 12 amps., 125 volts; 6 amps., 250 volts. Bakelite case, screw terminals. Shank 15/32" diameter, 5/16" long. With nuts.

H & H No.	Poles	Fig.	Net 1-24	Net 25-99
80607	SPST	C	82c	73c
80600	DPST	C	82c	73c

NEUTRAL CENTER TOGGLE—FIG. G

All bakelite body, bat handle; lug terminals, 15/32" diam. mtg. shank. Takes 3 amps. at 250 volts; 6 amps. at 125 volts; 11/16" stem length. U.L. Listed, DPDT, **H&H No.82024-D,** 1-24, Net, **95c** 25-99, Net **84c**

HEAVY-DUTY NEUTRAL CENTER TOGGLE SWITCHES—FIG. H

Screw terminals, 5 amps., 250 volts; 10 amps., 125 volts. 3/4" dia. mtg. shank, 31/64" stem length.

H & H No.	Poles	Net 1-24	Net 25-99
80638	DPDT	$2.43	$2.18
80985	4PDT	4.92	4.43

MOMENTARY PUSH-BUTTON—FIG. F

Laminated bakelite insulation, quick-make, quick-break. Shank lgth., 9/16", dia., 15/32". Lug terminals. Red or black button, specify color. 3392AE is 2-circuit type, slow make, slow break.

H & H No.	Poles	Amps.	Volts	Net 1-24	Net 25-99
3592	SPST	3	250	$0.91	$0.82
3595C	SPDT	1	250	1.02	.92
3594Q	DPST	1	250	1.21	1.09
3599G	DPDT	1	250	1.33	1.20
3392AE	SP2	1	125	.68	.62

ROTARY SWITCHES—FIG. D

1 amp., 250 volts; 3 amps., 125 volts Stem, 1 1/8" long, 1/4" dia. Shank lgth. 3/8", 11/32" dia. UL listed. SPST rated 3 amps., 250 volts.

H & H No.	Poles	Net 1-24	Net 25-99
1561-BS	SPST	46c	42c
1565-BH	SPDT	56c	51c
1572-AR	DPST	76c	68c
1575-AG	DPDT	86c	77c

CANOPY SWITCH—FIG. E

Precision rotary switch. 3 amps., 125 volts; 1 amp., 250 volts. UL approved. Bakelite base, threaded shank, 3/8" dia., 7/32" long. Fluted shaft, 3/16" dia., 5/16" long. Complete with mounting nuts. **H&H No. 7775**—1-24 Net **24c.** 25-99 Net..... **20c**

DOUBLE ACTION PUSH-BUTTON SWITCHES—FIG. F

Plunger-type SPST, rated 6 amps., 125 volts; 3 amps., 250 volts. Threaded shank 15/32" dia., 9/16" long. With mounting nuts. 86710-C comes with either red or black button. Specify color.

H & H No.	Poles	Fig.	Net 1-24	Net 25-99
86710	SPST	F	$0.76	68c
86710-C	SPST	F	.90	81c

INTERMEDIATE TYPE BAT HANDLE TOGGLE—FIG. G

All-bakelite body, lug terminals. 15/32" dia. mtg. shank. 3 amps., 250 volts; 6 amps., 125 volts. 15/32" stem. UL listed.

H & H No.	Poles	Net 1-24	Net 25-99
81015	SPST	48c	44c
81021	SPDT	58c	53c
81024	DPST	79c	71c
81027	DPDT	89c	80c

MALLORY JACK SWITCHES

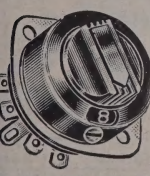
Highly recommended for use in laboratories, test panels, meter circuits and other equipment where variable circuit combinations are possible through use of the leaf spring type assembly.

Description. Junior jack or short frame type is constructed with the frame supporting the spring stack at right angles. Due to the short springs used, only a minimum of space is necessary for mounting. Knob and shaft rotate through bushing, actuating cam. Frames are cadmium-plated. Bushings and special alloy springs are nickel-plated. Fine silver contacts insure low contact resistance. Suitable for mounting in a single hole (7/16") on panels up to 1/4". Furnished with 1/4" flatted shaft. One mounting nut and washer furnished. Knobs suitable for these switches will be found elsewhere in this catalog.

JACK SWITCHES—TWO POSITION

Mallory No.	Circuit Arrangement	Net Each
720	Single-Pole, Single-Throw	$0.66
730	Single-Pole, Double-Throw	.81
740	Double-Pole, Single-Throw	.90
745	Five springs, two break and one make	1.05
760	Double-Pole, Double-Throw	1.17
733	Three-Pole, Single-Throw	1.17
744	Four-Pole, Single-Throw	1.53
THREE POSITION		
732	Double-Pole, Single-Throw Center "Off"	$0.81
762	Double-Pole, Double-Throw Center "Off"	1.14
763	Three-Pole, Double-Throw Center "Off"	1.50
764	Four-Pole, Double-Throw Center "Off"	1.86

AMPHENOL TAP SWITCH



3 position single pole continuous switch with white markings, clearly visible in window cap. Side set screw locks switch arm in position preventing accidental tap changes.

Amphenol No. 36-1, with numerals from 1 to 8. Net Each.... **54c**

Amphenol No. 36-2, with impedance markings: 0-2-4-8-16-250-500 Net Each..... **54c**

FEDERAL ANTI-CAPACITY SWITCHES

Silver plated phosphor bronze springs and contacts plu new, improved design insure excellent, long service

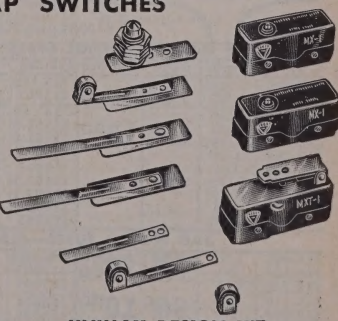
Fed. No.	Poles	Net Each
1424	4PDT	$2.86
1425	DPDT	2.53
1427	DPST (N.O.)	2.53
2494	8PDT.....	6.20

UNIMAX SNAP SWITCHES

Heat treated beryllium copper switch blade. Units listed below vary only in type of actuator, which is attached to a stainless steel "Adaptaplate" that is removable and interchangeable. Operating force approx. 8 ounces. All units single pole double throw except MXO-1, SPST and SAT-1-Z1, DPST. 15 amps., 125 volts or 5 amps., 250 volts. 50-60 cps., non-inductive. 1 15/16" x 13/16" x 11/16". Shipping weight 3 oz.

Unimax Type	Actuator	Net Each
MX-1*	Basic pin type.....	$1.10
MXL-1*	Leaf spring type....	1.20
MXW-1*	Leaf type with roller	1.55
MXT-1*	Hinged leaf spring..	1.40
MXA-1*	Same, with roller...	1.80
MXM-1	Safety interlock.....	1.75
SAT-1-Z1	Dual switch.....	3.40
MXQ-1*	Small plunger.....	1.40
MXJ-1*	Large plunger.....	2.50
MXH-1	Stub plunger.....	1.40
MXO-1	Top reset plunger...	1.30
MXR-1	Plunger with roller..	4.00
MB-1	Low force pin.....	1.10
MXF-1	Pre-stressed roller...	1.80

*JAN Types.

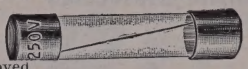


UNIMAX DESIGN KIT

Standard interchangeable parts for construction of needed precision switch. Includes: "J," "W" and 2, "L" type adaptaplates. 2, MX-1 and 1, MXT-1 switches; 1 spring leaf actuator; 1 leaf and roller style; 1 roller assembly; 12 screws, 12 rivets. Complete kit, Net Each.... **$3.00**

Littelfuse Fuses and Mountings

TYPE 3AG AND 3AB 250 VOLT LITTELFUSES



Series 312000—3AG, quick acting, low time lag. Metal cap. Diagonal element for accurate alignment calibration. 1¼ x ¼". Shpg. Wt. 100, 1½ lbs. U/L approved.
Series 314000—Smallest U/L approved fuses. Bakelite enclosed, arc-quenching powder filled fuses. Medium time lag. *125-volt type.

L. F. No.	Amp.	5 For	100 For	L. F. No.	Amp.	5 For	100 For
312.062	1/16	51c	$8.50	312004	4	30c	$5.00
312.125	1/8	48c	8.00	312005	5		
				312006	6		
312.150	15/100	45c	$7.50	312008*	8	45c	$7.50
312.175	.175			314001	1		
312.187	3/16			314002	2		
312.250	¼			314003	3		
312.300	3/10			314005	5		
312.375	⅜			314008	8		
312.500	½			314010	8		
312.750	¾			314012	12		
312001	1	24c	$4.00	314015	15		
312.01.5	1½			314020	20		
312002	2			314030	30		
312003	3						

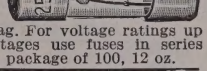
TYPE 3AG 125 VOLT SLO-BLO LITTELFUSES

Series 313000—Slo-Blo fuses with high time lag for circuits with equipment having high inductive or capacitative surges, heavy starting currents and intermittent-duty circuits. Anti-fatigue construction, compound element with spring and resistor.

L. F. No.	Amp.	5 For	100 For	L. F. No.	Amp.	5 For	100 For
313.010	1/100	99c	$16.50	313.800	8/10	81c	$13.50
313.032	1/32			313001	1		
313.062	1/16	81c	$13.50	3131.25	1¼	60c	$10.00
313.100	1/10			31301.5	1½		
313.125	⅛			31301.6	1-6/10		
313.150	15/100			313002	2		
313.175	.175			31302.5	2½		
313.187	3/16			31300	3		
313.200	2/10			31303.2	3-2/10		
313.250	1/4			313004†	4		
313.300	3/10			313005†	5		
313.375	⅜			3136.25#	6¼		
313.400	4/10			313008#	8		
313.500	1/2			313010#	10		
313.600	6/10			313015#	15		
313.750	3/4			313020#	20		

†125 volt ratings. #32 volt ratings.

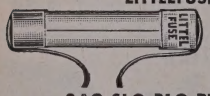
8AG INSTRUMENT HIGH SPEED LITTELFUSES



Locked Cap Assembly for protection of delicate test equipment. Glass-enclosed; 1" x ¼" dia., accurately rated, high speed action, short time lag. For voltage ratings up to 250 v. AC or DC. For higher voltages use fuses in series **361005**, 32 volt type. Shipping Weight, package of 100, 12 oz.

L.F.No.	Amp.	5 For	100 For	L.F.No.	Amp.	5 For	100 For
361.002	1/500	$3.60	$60.00	361.500	½	54c	$9.00
361.005	1/200	1.38	23.00	361.750	¾		
361.010	1/100	1.20	20.00	361001	1	30c	$5.00
361.031	1/32	1.14	19.00	361.01.5	1½		
361.062	1/16	.75	12.50	361002	2		
361.125	1/8	54c	$9.00	361003	3		
361.250	1/4			361005	5#		
361.375	3/8			361020	20		

LITTELFUSE TELEVISION FUSES



The same types as used by original set manufacturers. Pigtail types have 1½" tinned wire leads and solder into circuit where space is limited. Size 1¼ x ¼". U/L approved except 310131, 315004 and 315005.

3AG SLO-BLO PIGTAIL FUSES—(125 VOLT)

L. F. No.	Amp.	5 For	100 For	L. F. No.	Amp.	5 For	100 For
315.010	1/100	1.35	22.50	315.800	8/10	1.02	17.00
315.032	1/32			315001	1	1.02	17.00
315.062	1/16	1.02	17.00	3151.25	1 1/4	96c	16.00
315.100	1/10			31501.5	1 1/2		
315.150	15/100			31501.6	1 6/10		
315.200	2/10			315002	2		
315.250	1/4			315003	3	90c	15.00
315.300	3/10			31502.5	2 1/2		
315.400	4/10			31503.2	3 2/10		
315.500	1/2			315004	4		
315.600	6/10			315005	5		

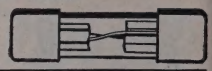
3AG PIGTAIL FUSES—(250 VOLT)

L. F. No.	Amp.	5 For	100 For	L. F. No.	Amp.	5 For	100 For
318.062	1/16	75c	12.50	31801.5	1 1/2	45c	$7.50
318.125	1/8	69c	11.50	318002	2		
318.250	1/4	60c	10.00	318003	3		
318.375	3/8			318004	4	48c	$8.00
318.500	1/2			318005	5		
318.750	3/4			318006	6		
318001	1	45c	$7.50				

8AG U/L FUSES—(250 VOLT)

362.125	1/8	48c	8.00	362001	1	24c	$4.00
362.250	1/4	45c	$7.50	36201.5	1 1/2		
362.375	3/8			362002	2		
362.500	1/2			362003	3		
362.750	3/4			362005	5	15c	$2.50

TYPE 4AG AIRCRAFT FUSES

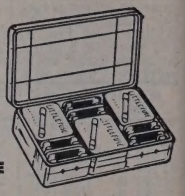


Series 411000—4AG fuses withstand vibrations, shocks and repeated off-and-on demands encountered in aircraft operation. Medium to slow fuses. Overall size: 1¼" long x ¼" diameter.

L.F. No.	Amp.	5 For	100 For	L.F. No.	Amp.	5 For	100 For
411010	10	42c	$7.00	411030	30	42c	$7.00
411015	15			411035	35	45c	7.50
411020	20			.....	.....	....	.....
411025	25			.....	.....	....	.....

§Not U/L Approved. #32 volt ratings.

TYPE 094029 ONE-CALL TV KIT



Contents include fuses used by the TV serviceman. Hinged, clear plastic box contains: 5-3AG 5 amp; 10-3AG ¼ amp; 5-3AG ½ amp; 10-3AG ¼ amp slo-blo; 5-3AG ½ amp slo-blo; 5-3AG 5 amp slo-blo; 5-8AG ¼ amp U/L; 6-TV snap-on fuse mountings.
Type 094029—Serviceman's kit. Net Each..... $6.37

TYPE 094024 SNAP-ON FUSE HOLDER

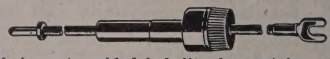
For fast and safe replacement of TV pigtail fuses. Just snap replacement fuse in holder and snap other side of holder on the burned out pigtail fuse in the set. No soldering or pigtail cutting is required. Less fuses.
Type 094024—Snap-On Fuse Holder. Card of 24 holders. Net Price..... $4.32
Type 094025—Snap-On Fuse Holder. Box of 10. Net Price..... $1.80

LITTELFUSE STANDARD FUSE CLIPS

Fuse clips listed below are standard, available in three types, with ears or fuse stops as illustrated, without ears, or with lug or solder terminal. All three are available in beryllium copper with silver plating or in phosphor bronze with nickel plating.

Fuse Adaptation	Type	Beryllium-Copper No.	Beryllium-Copper 10 for	Phosphor-Bronze No.	Phosphor-Bronze 10 for
SFE, 3AG, 8AG	Ears	121001	$0.36	101001	$0.12
SFE, 3AG & AB, 8AG	Earless	121002	.36	101002	.12
SFE, 3AG & AB, 8AG	Terminal	121004	.48	101003	.18
4AG, 4AB	Ears	123001	.48	103001	.30
4AG, 4AB	Earless	123002	.48	104002	.24
4AG 4AB	Terminal	123004	.72	103003	.30
5AC Hi-Volt, Midget	Ears	125001	.90	105001	.30
5AC, Hi-Volt, Midget	Earless	125002	.90	105002	.30
5AG, Midget	Terminal	125004	1.20	105003	.48
N.E.C.-30	Ears	127001	1.08	107001	.42
N.E.C.-30	Earless	127002	1.08	107002	.42
Std. Hi Voltage	Ears	129001	2.40	109001	.96
Std. Hi Voltage	Earless	129002	2.40	109002	.96

155000 SERIES IN-LINE FUSE RETAINER



Sturdy high impact molded bakelite fuse retainers designed to hang in the cable or mount in the chassis. Intended for low voltage applications as in car radios, heaters, spot-lights, clocks, etc. Circuit breaks when knob is removed for safe examination of fuses. With 19-inch leads. Other leads available on request.
155004—For 4-amp. SFE & 1AG
155006—For 6-amp. SFE
155009—For 9-amp. SFE & 7AG
155014—For 14-amp. SFE & 8AG
155020—For 20-amp. SFE & 3AG fuses—Net Each..... 27c

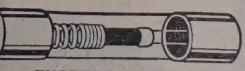
LITTELFUSE MOUNTINGS—EXTRACTOR POSTS

L. F. No.	Fig.	Fits Fuse Type	Description	Net Each
341001	A	3AG-3AB	Screw. Slot—Panel Mount	$0.28
342001	B	3AG-3AB	Finger Knob—Pan. Mount	.28
342003	.....	3AG	Miniature—Panel Mount	.28
342006	.....	3AG	Watertight—Panel Mount	1.41
342008	.....	3AG	Dust-proof—Panel Mount	.32
371001	A	8AG	Screw. Slot—Panel Mount	.28
372001	B	8AG	Finger Knob—Pan. Mount	.28
356001	C	3AG-3AB	Single Fuse—Screw Term.	.24
357001	C	3AG-3AB	Single Fuse—Solder Term.	.10
356002	D	2-3AG or 3AB	DoubleFuse—ScrewTerm.	.48
357002	D	2-3AG or 3AB	Double Fuse—Sold. Term.	.20
387001	C	8AG	Single Fuse—Solder Term.	.10
387002	D	2-8AG	Double Fuse—Sold. Term.	.20
383002	E	8AG	Single Fuse—Meter Back	.21
353001	F	3AG-3AB	Single Fuse—Panel Mount	.36
383001	F	8AG	Single Fuse—Panel Mount	.36
351009	G	2-3AG or 3AB	Dble. Fuse—Hinged Cover	.66
442006	.....	4AG	Watertight—Panel Mount	1.41
571004	.....	5AG	Watertight—Panel Mount	1.02

229Y-55B

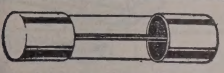
Fuses, Fuse Holders, Batteries

BUSS FUSES AND HOLDERS



FUSETRON DUAL ELEMENT FUSE

uss No.	Amps.	Mx. V.	10 For
IDL	1/100, ½	250	$1.98
IDL	⅛ to 1	250	1.62
IDL	1¼ to 2	125	1.40
IDL	2½ to 3.2	125	1.20
IDL	4 to 30	32	1.20



FAST ACTION INSTRUMENT FUSE
(Formerly Called 8AG)

uss No.	Amps.	Mx. V.	10 For
GX	1/500	250	$7.20
GX	1/200	250	2.80
GX	1/100	250	2.40
GX	½	250	2.30
GX	⅛	250	1.50
GX	⅛	250	.96
GX	¼, ⅜, ½	250	.90
GX	¾	125	.90
GX	1, 1½, 2, 3	125	.48
GX	5	125	.30
GX	8, 10, 15, 20, 25, 30	32	.36

STANDARD GLASS TUBE FUSE
(Formerly Called 3AG)

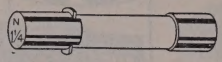
Buss No.	Amps.	Mx. V.	10 For
AGC	⅛	250	$1.50
AGC	⅛	250	.96
AGC	¼, ⅜, ½, ¾	250	.90
AGC	1, 1½, 2	250	.48
AGC	3	250	.42
AGC	5, 6, 7½, 10 or 15	32	.30
AGC	25 or 30	32	.36
MTH	4, 5 or 6	250	.60

BAKELITE TUBE FUSE
(Formerly Called 3AB)

Buss No.	Amps.	Mx. V.	10 For
ABC	10, 12, 15, 20	250	$0.90

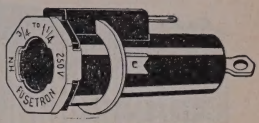
SFE STANDARD FUSE

Buss No. and Amps.	Lgth., In.	Max. Volts	10 For
SFE4	⅝	32	$0.30
SFE6	¾	32	
SFE9	7/8	32	
SFE14	1 1/16	32	.24
SFE20	1¼	32	
SFE30	1 1/16	32	.36



QUICK BLOWING TYPE C

Buss Nos. Amperage Range	Fit Holders No.	Net Ea.
C½	HCO-3/10	23c
C⅛	HCO-3/10	16c
C⅛-¼	HCO-3/10	12c
C-3/10	HCO-3/10	10c
C⅜-½	HC3/10-½	10c
C¾	HC½-¾	10c
C1-1¼	HC¾-1¼	5½c
C1½-1¾	HC1¼-1¾	5½c
C2-2½	HC1¾-2½	5½c
C3	HC2½-3½	5½c
C3½	HC2½-3½	7c
C4-5	HC3 6/10-5	7c
C6-7	HC5-7	7c
C8	HC7-10	10c
C10	HC7-10	11c



FUSETRON TYPE N

Buss Nos. Amperage Range	Fit Holders No.	Net Net Ea.
N1/100-½	HNO-3/10	21c
N⅛-3/10	HNO-3/10	17c
N4/10-½	HN3/10-½	17c
N6/10-¾	HN½-¾	17c
N8/10-1	HN¾-1	17c
N1¼	HN1¼-1¾	16c
N1 6/10-1¾	HN1 3/10-1¾	16c
N2	HN1¾-2½	16c
N2½	HN1¾-2½	14c
N2 8/10-3½	HN2½-3½	14c
N4-5	HN3½-5	14c
N6¼-7	HN5-7	14c

Fuseholders Types HC or HN—State Type and size needed. Both types and all sizes. Net Each **12c**

FUSE CLIPS FOR ¼" FUSES

Spring bronze clips made from Herculoy, extra strong grip alloy. Beryllium copper clips combine low electrical resistance with great gripping strength, resulting in cooler operation of clips and fuse. Mounting hole .130" to .135". Maximum height 11/16"; maximum width 11/16".

Buss No. 4548—Nickel plated bronze. Net, 10 for **10c**

Buss No. 4592—Beryllium copper, silver plated. Net, 10 for **25c**

Buss No. 4431—Bronze with terminal screw. Net, 10 for **50c**

Buss No. 4432—Copper with terminal screw. Net, 10 for **60c**

PLUG-TYPE FUSE

ug-type fuses fit standard Edison socket. UL inspected. Large, ear window shows fuse link. Metal cap over porcelain insulation. **uss Type W Fuse**—1, 3, 5, 6, 8 amp. sizes. et Each **5½c**

, 15, 20, 25 and 30 amp sizes. Net Each **5c**

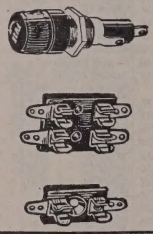
FUSE BLOCKS

Bakelite base blocks 5/16" thick. Countersunk mounting holes for No. 6 flat-head screw. Solder terminals.

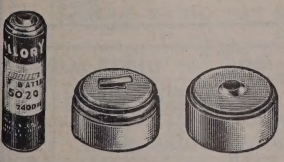
Buss No.	Poles	Fuse Types	Net Each
4514	Single	SFE14, AGX, MJB	20c
4512	Single	SFE20, ABC, AGC, MDL, MTH	
4524	Two	SFE14, AGX, MJB	40c
4522	Two	SFE20, ABC, AGC, MDL, MTH	
4534	Three	SFE14, AGX, MJB	60c
4532	Three	SFE20, ABC, AGC, MDL, MTH	
SOLDER TERMINALS—SMALL BASE			
4520	Single	AGX, MJB	8½c
4405	Single	SFE20, ABC, AGC, MDL, MTH	9c
4485	Two	SFE14, AGX, MJB	18½c
4408	Two	SFE20, ABC, AGC, MDL, MTH	18c
4403	Three	SFE14, AGX, MJB	29c
4411	Three	SFE20, ABC, AGC, MDL, MTH	27c

BUSS FUSE CLIPS, HOLDERS

Buss No.	Fig.	Descrip-tion	Fits Type	Net Each
JM	A	Pan. holder for ¼" fuses	AGX, MJB, SFE-14	28c
KP	A	Pan. holder for ¼" fuses	SFE20, MDL, ABC, AGC, MTH	
DI	....	In-line hld. for #18 wire	AGX, MJB, SFE 14	12c
DJ-A	....	In-line hld. for #18 wire	ABC, AGC, MTH, SFE20, MDL	
DJ-B	....	In-line hld. for #14-16 wire	(Same as above)	



MALLORY MERCURY BATTERIES



These batteries provide more energy in less space. Dependent upon conditions of application, they can provide up to eight times the energy-volume ratio of ordinary dry cell batteries. This feature makes Mallory Mercury Batteries unequaled in applications where space is at a premium.

UNIFORM DISCHARGE VOLTAGE—NO ROTATION

esigned to provide their energy at discharges of approximately **25 volts** throughout a long service life. They do not need rest eriods in order to provide all of their electro-chemical energy. ithin design load conditions, the service life of these batteries the same under either continuous or intermittent loads.

LONG SHELF LIFE

ntil electrical energy is drawn from these cells, there is no ternal cell reaction because of stable chemical components and assive cell case materials used in the construction of the batries. Storage conditions of high temperature and humidity do t affect the shelf life of these batteries.

EAK-PROOF, DIMENSIONALLY STABLE CONSTRUCTION

o swelling or bulging, free from common battery leakage probms. Mallory batteries do not leak even when stored and opated at high temperatures or if they are not removed from rvice until after they are entirely exhausted.

FOR MILITARY USE ONLY

Mallory Type	Nom. Volt.	Cap. MAH	Description	Net Each
A-1051/U	64	650	Transceiver "B" Bat.	$22.50
A-1277/U	1.34	35400	SU-10 Mil.-Radiation	**
A-1278/U	†	650	SU-10 Mil.-Radiation	***
A-1293/U	4	650	Military Bias Battery	3.75

POWER PAK BATTERIES

Mallory Power-Pak batteries are becoming universally accepted for use in Geophysical, Transceiver, Radiation and Recording instruments and for many other electronic applications.

Mallory Type	Nom. Volt.	Cap. MAH	Max. Ma. Drain	Description††	Net Each
302157	1.34	36000	2500	SU Rad. Detector "A"	$8.80
302158	†	1000	100	SU Rad. Detector "B"	22.50
302249	6.7	250	10	Radiation Detector	1.85
302250	9.4	250	10	Radiation Detector	2.05
302435	6.7	250	10	Radiation Detector	1.85
302437	9.4	250	10	Radiation Detector	2.05
302462	96.4	1000	100	CBS Xmtr. "B" Sup'y	28.50
302463	1.34	18000	1250	New style Geophysical	4.50
302464	6.7	3600	250	New style Geophysical	4.00
302465	45	1000	100	New style Geophysical	12.00
302478	9	2300	80	Minifon Recorder	4.10

†"B" voltage, 45-22.5; "C" voltage, 5.2-2.6. **For civilian use substitute 302157. ***For civilian use, substitute 302158. ††These, applications are for use as a guide only and are not intended to cover all possible applications.

1.25 VOLT "A" BATTERIES

Mallory No.	Diameter (In.)	Height (In.)	Button Ht. (In.)	Volume (Cu. In.)	Wt. (Oz.)	Capacity (MAH)	Min. Flash Current (Amp.)	Net Ea.
RM1R	.625	.650	.058	.20	.43	1000	.5	30c
RM3R	.973	.650	.058	.50	.93	2000	.6	46c
RM4R	1.187	.650	.058	.72	1.60	3200	1.1	65c
RM12R	.625	1.950	.058	.60	1.40	3600	1.8	75c
RM401R	.465	1.140*	....	.18	.40	800	.....	35c
RM625RT	.606	.225	Clip	.07	.14	200	.....	26c
RM502R	.538	1.950	.058	.44	1.05	2400	1.8	60c

*Overall height including button height.

EVEREADY Batteries

TRADE-MARK

Compact—"Eveready" Radio Batteries made modern portable radios possible. "Eveready" "Mini-Max" batteries are smaller in size, because they contain no waste space, are constructed of flat tightly-fitted cells.

Powerful—"Eveready" Radio Batteries pack tremendous energy in tiny space. And there is an "Eveready" Radio Battery built with this famous construction to equip virtually every battery operated radio!

No. 950

No. 964

No. 477

No. 467

A AND B BATTERIES FOR PORTABLE RECEIVERS

"Eveready" No.	Voltage	Overall Dimensions, Inches L W H	List Price, Each	Unit Qty.	Wt. of Unit, Lbs.	Battery Weight	Terminals	Net Price Unit Package	Net Price Each, in Unit Package
411	15 Volt	1 1/32 x 5/8 x 1 29/64	$0.95	5	1 1/16	4/5 oz.	Flat Contact −, +15	$ 3.25	$0.65
412	22½ Volt	1 1/32 x 5/8 x 2	1.15	5	1½	1 1/5 oz.	Flat Contact −, +22½	4.00	.87
413	30 Volt	1 1/32 x 5/8 x 2 9/16	1.40	5	1.1	1 2/5 oz.	Flat Contact −, +30	4.80	1.03
415	45 Volt	1 3/64 x 5/8 x 3 45/64	2.00	6	7/8	2 1/5 oz.	Snap Type −, +45	9.48	1.58
417	15 Volt	1 5/16 x 31/32 x 1 9/16	1.00	6	0.8	1 4/5 oz.	Flat Contact −, +15	5.10	.85
420	22½ Volt	1 5/16 x 31/32 x 2 3/16	1.50	6	1.1	2 1/5 oz.	Flat Contact −, +22½	6.18	1.03
430	30 Volt	1 5/16 x1 x 2 13/16	1.75	24	5½	3 1/5 oz.	Flat Contact −, +30	28.56	1.19
437	75 Volt	1 15/16x1 15/16x 6 15/32	3.25	3	3	14¾ oz.	Snap Type −, +75	7.38	2.46
455	45 Volt	2 21/32x1 x 3 11/16	1.95	6	3¼	7 4/5 oz.	Snap Type −, +45	8.52	1.42
457	67½ Volt	2 13/16x1 3/8 x 2½	2.50	6	3	7 2/5 oz.	Snap Type −, +67½	11.58	1.93
467	67½ Volt	2 13/16x1 3/8 x 3 45/64	2.75	6	4¾	12 oz.	Snap Type −, +67½	12.42	2.07
477	67½ Volt	1 29/32x 3/64x 5 7/16	2.35	6	3	8 3/5 oz.	Snap Type −, +67½	10.56	1.76
479	90 Volt	1 31/32x1½ x 7 15/32	3.25	6	4¾	.....	Snap Type −, +90	13.68	2.28
482	45 Volt	3 19/32x1 27/32x 5½	2.50	6	12½	1 lb. 15 oz.	Socket −, +45	.....	1.93
434	45 Volt	3 31/32x2 17/32x 5 5/16	3.25	1	3¼	3 lb. 2 oz.	Socket −, +45	15.12	2.52
490	90 Volt	3 25/32x1 3/8 x 3 45/64	3.60	6	6½	15 oz.	Snap Type −, +90	.....	7.70
504	15 Volt	5/8 x 19/32x 1 3/8	1.00	1	1/16	3/5 oz.	Flat Contacts	.....	.68
505	22½ Volt	5/8 x 19/32x 1 61/64	1.25	1	1/16	4/5 oz.	Recessed	.....	.87
506	30 Volt	1 13/64x 5/8 x 1 7/16	1.60	1	1/16	9/10 oz.	Flat Contacts	.....	1.10
507	30 Volt	5/8 x 19/32x2.605	1.25	1	1/16	9/10 oz.	Flat Contact −, +30	.....	.96
733	45 Volt	3 x2 1/16 x 4 1/8	3.50	2	2½	1 lb. 3 2/5 oz.	Socket −, +22½, +45	4.90	2.45

A BATTERIES FOR PORTABLE RECEIVERS

D-99	1½ Volt	1 21/64 Diam. x 2 15/32	.20	48	10	3 1/3 oz.	Flashlight	6.00	.125
635	1½ Volt	1 1/64 Diam. x 1 31/32	.15	12	1½	1. oz.	Flashlight	1.20	.10
713	7½ Volt	3 29/32x 53/64x 2 27/32	1.10	1	3/8	6 1/2 oz.	Socket −, +7½	.....	.77
717	7½ Volt	2 7/32 x1 15/16x 3 1/32	1.00	6	3	8 oz.	Socket −, +7½	4.20	.70
718	6 Volt	3 29/32x2 3/4 x 5 7/16	2.45	1	2¾	2 lb. 4 oz.	Socket −, +6	.....	1.72
720	1½ Volt	2 25/32x1 13/32x 3 1/32	.65	6	2 3/8	6 1/2 oz.	Socket −, +1½	2.70	.45
724	6 Volt	1 7/32 x1 7/32 x 2 11/32	.75	1	¼	2 1/2 oz.	Flashlight	.....	.53
726	4½ Volt	3 15/16x1 5/16 x 2 15/16	.75	6	4	10½ oz.	Socket −, +4½	3.18	.53
736	4½ Volt	3 15/16x1 5/16 x 4 3/32	.90	6	6¼	1 lb.	Socket −, +4½	3.78	.63
741	1½ Volt	3 7/8 x2 11/16x 5 3/8	2.10	1	2¾	2 lb. 10 oz.	Socket −, +1½	.....	1.47
742	1½ Volt	2 1/16 x2 5/16 x 3 31/32	1.15	6	8	1 lb. 5 oz.	Socket −, +1½	4.86	.81
743	1½ Volt	3 15/16x2 5/8 x 4 1/32	1.65	3	6	1 lb. 15 oz.	Socket −, +1½	3.48	1.16
744	6 Volt	2 21/32x2 21/32x 3 3/32	1.15	6	8¼	1 lb. 5 oz.	Socket −, +6	4.86	.81
745	1½ Volt	3 7/8 x1 7/16 x10 3/32	2.25	2	5½	2 lb. 10½ oz.	Socket −, +1½	3.16	1.58
746	4½ Volt	3 15/16x1 5/16 x 4 21/32	.95	6	7¼	1 lb. 3 2/5 oz.	Socket −, +4½	4.02	.67
747	6 Volt	3 7/8 x1 7/16 x10 3/32	2.75	2	5½	3 lb. 11 oz.	Socket −, +6	3.86	1.93
†912	1½ Volt	0.4 Diam. x 1¾	.10	12	¾	3 oz.	Flashlight	.96	.08
†915	1½ Volt	35/64 Diam. x 1 13/32	.10	12	7/16	3/5 oz.	Flashlight	.96	.08
†935	1½ Volt	1 1/64 Diam. x 2	.125	12	1½	1 2/5 oz.	Flashlight	1.17	.0975
†950	1½ Volt	1 27/64 Diam. x 2 13/32	.15	48	9½	3 oz.	Flashlight	4.68	.0975
951-P	1½ Volt	1 11/32 Diam. x 4 1/16	.45	1	5½	5 oz.	Socket −, +1.5	.....	.33
964	1½ Volt	1 3/8 Diam. x 4 11/64	.30	12	4½	5.9 oz.	Flashlight	2.52	.21
1015	1½ Volt	1 9/64 x 19/32x 2 1/64	.30	24	1¾	1.1 oz.	2 brass caps, 2 zinc caps	5.04	.21

†Flashlight Types.

A-B PACK FOR 1.4 VOLT PORTABLE RECEIVERS

729	1½ A, 90 B	7 13/16x2 29/32 x 3 27/32	5.25	1	2½	2 lb. 7 oz.	Socket − A, +1½ A, −B, +90 B	.....	3.68
732	9 A, 90 B	14 1/16 x2 11/16x 4 1/16	6.65	1	6¼	6 lb. 2 oz.	Plug − A, +9 A, −B, +90 B	.....	4.65
752-W	10½ A, 90 B	14 1/16 x2 11/16x 4 1/16	7.10	1	7	6 lb. 8 oz.	Plug −A, +10½ A, −B, +90 B	.....	4.97
753	7½ & 9 A, 90 B	9 1/32 x2 23/32x 4 5/16	6.25	1	5	4 lb. 12 oz.	Socket − A, +7½ A, +9 A, −B, +90 B	.....	4.38
754	7½ & 9 A, 90 B	10 15/32x3 1/4 x 4	6.75	1	6¼	6 lb. 1 oz.	Socket − A, +7½ A, +9 A, −B, +90 B	.....	4.73
755	6 & 7½ A, 75 B	8 7/16 x2 7/16 x 3 3/4	5.50	1	3¾	3 lb. 9 oz.	Socket − A, +6 A, +7½ A, −B, +75 B	.....	3.85
756	7½ & 9 A, 90 B	8 7/8 x2 1/8 x 3 3/32	5.95	1	3	2 lb. 14 oz.	Socket − A, +7½ A, +9 A, −B, +90 B	.....	4.38
756P	9 A, 90 B	8 7/8 x2 1/8 x 3 3/32	6.25	1	3	2 lb. 14 oz.	Plug − A, −B, +9 A, +90 B	.....	4.38
757	9 A, 90 B	9 7/32 x2 27/32x 4 5/32	6.25	1	5	4 lb. 12 oz.	Plug − A, +90 A, −B, +90 B	.....	4.38
776	7½ & 9 A, 90 B	7 3/16x4 1/8 x 9 1/8	10.95	1	15¼	14 lb. 12 oz.	Socket & Plug − A, +7½ A, +9 A, −B, +90 B	.....	8.21

Note. All plugs are recessed type.

B BATTERY FOR FARM TYPE RECEIVERS

487	45 Volt	5 1/8 x2 1/16 x 7 1/4	3.45	6	27	4 lb. 2 oz.	Socket −, +22½, +45	15.36	2.56

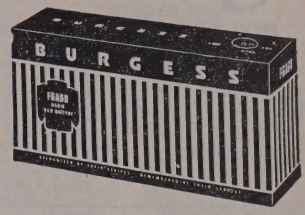
A-B PACK 1.4 VOLT FARM TYPE RECEIVERS

758	1½ A, 90 B	10 11/16x4 1/2 x 6 13/16	7.95	1	14¾	14 lb. 4 oz.	Socket − A, +1.5 A, −B, +90 B	.....	6.71
759	1½ A, 90 B	15 11/16x4 5/32 x 6 15/16	7.95	1	17	16 lb. 4 oz.	Socket − A, +1.5 A, −B, +90 B	.....	6.71

C BATTERIES AND MISCELLANEOUS TYPES

703	4½ Volt	2 7/16 x 31/32x 3 5/16	.60	1	5/16	5 oz.	Spring −, 4½	.....	.39
714	4½ Volt	3 3/32x1 1/32x 3 1/32	.60	1	1	14½ oz.	Screw −, 4½	.....	.42
750	3 Volt	1 11/32x 11/16x 2 11/16	.50	10	1½	2 oz.	Spring −, +3	3.20	.32
751	4½ Volt	2 x 11/16x 2 7/32	.60	10	2	3 oz.	Spring −, 4½	3.90	.39
760	4½ Volt	2 7/16 x 31/32x 2 19/32	.60	6	1	4½ oz.	Wire −, +4½	2.52	.42
761T	4½ Volt	4 1/16 x1 15/32x 3 1/32	1.15	5	5	14 oz.	Screw +, −1½, −3, −4½	3.95	.79
762-S	45 Volt	4 5/32 x2 5/16 x 6 1/32	4.50	1	3	2 lb. 12 oz.	Screw −, +22½, +45	.....	3.15
763	22½ Volt	3 1/32 x2 5/32 x 2 1/16	1.95	1	1	14 oz.	Screw −, +22½	.....	1.37
766	22½ Volt	6 3/4 x4 1/8 x 3 15/16	3.65	6	32	4 lb. 10 oz.	Spring −, +16½, +18, +19½, +21, +22½	15.30	2.55
768	22½ Volt	4 5/8 x2 17/32x 2 31/32	2.15	1	1½	1 lb. 8½ oz.	Socket +, −3, −4½, −16½, −22½	.....	1.51
771	4½ Volt	3 29/32x1 3/4 x 3 1/16	1.25	5	4½	13 oz.	Socket +, −3, −4½	4.45	.89
773	7½ Volt	3 29/32x 7/8 x 3 3/8	1.20	5	3	9 oz.	5 Screw; 1 wire +, −1½, −3, −4½, −6, −7½	4.20	.84
774	7½ Volt	4 1/32 x1 7/32x 3	1.75	5	3	8½ oz.	Socket +, −7½	6.15	1.23
778	22½ Volt	4 3/8 x2 17/32x 3 7/16	2.45	4	6	1 lb. 8 oz.	Cannestock +, −3, −4½, −6, −9, −10½, −16½, −22½	6.88	1.72
781	4½ Volt	2 15/32x 55/64x 3 1/4	.65	5	1¾	5 oz.	Screw +, −4½	2.25	.45
789	3 Volt	5 9/32x1 7/16 x 3 1/4	1.10	1	1½	1 lb. 4½ oz.	Flat −, 3	.....	.77
799	49½ Volt	8 5/32 x1 1/4 x 8 19/32	9.50	6	93½	13 lb. 5 oz.	Spring −, +22½, +45, +49½	42.72	7.12

BURGESS BATTERIES



PORTABLE RADIO "A" BATTERIES

urgess No.	Volts	Size in Inches	Unit Pkg.	List Price	Net Each
4	6	4x2 13/16x5 7/16	1	$2.60	$1.74
	6	1 3/16x1 5/16x2 7/32	12	.75	.53
	4½	4x1 7/16x4 1/8	6	.87	.60
	1½	2 5/8x2 5/8x4 3/32	6	1.15	.81
	1½	4 3/32x2 3/4x4 1/16	3	1.75	1.17
PI	6	2 21/32x2 21/32x4 1/8	6	1.15	.81
	4½	4 1/16x1 7/8x4 11/16	6	.95	.67
	7½	3 29/32x7/8x2 27/32	6	1.10	.77
	7½	2 7/32x1 15/16x3 1/32	6	1.00	.70
	7½	2 17/32x2 19/32x3 29/32	3	1.38	.96
	1½	2 19/32x1 3/8x4 1/4	1	.75	.52
	1½	3 29/32x2 23/32x5 1/2	1	2.22	1.49
4L	6	4x1 1/2x10 3/4	2	2.92	1.96
R	1½	1 21/64 (dia.) x 4 1/8	24	.30	.21
	1½	1 21/64 (dia.) x 2 35/64	48	.15	.0975
	1½	63/64 (dia.) x 1 15/16	12	.15	.0975
	1½	3/4 (dia.) x 1 31/32	24	.125	.08
	1½	2 9/16x1 9/32x2 31/32	12	.65	.45
	4½	3 15/16x1 5/16x2 15/16	6	.75	.53

PORTABLE RADIO "B" BATTERIES

5	67½	1 7/8x3 31/32x5 9/32	6	2.50	1.76
X45	67½	2 3/4x1 11/32x3 43/64	6	2.95	2.07
X30	45	2 17/32x3 31/32x3 21/32	6	2.10	1.42
30	45	3 5/16x1 3/4x5 1/2	6	2.75	1.93
5	67½	2 11/16x1 5/16x2 1/4	6	2.75	1.93
0	90	3 11/16x1 9/16x3 19/32	6	3.60	2.52
0	45	3x2 5/16x4 1/16	2	3.50	2.45
0	45	3 9/16x2 1/4x4 5/16	2	2.50	1.75
0	45	4 1/16x2 17/32x5 5/16	2	3.50	2.46
X69	103½	1 11/32x1 11/32x11 23/32	6	5.38	3.60

PORTABLE RADIO "A" AND "B" BATTERIES

B60	9, 90	13 29/32x2 13/16x4 21/32	1	6.65	4.65
A60	7½, 9, 90	9 5/32x2 21/32x4 5/16	1	6.25	4.38
M60	7½, 9, 90	10 9/16x3 1/8x4 1/32	1	6.75	4.73
Z50	6, 7½, 75	8 1/32x3 11/32x2 3/8	1	5.50	3.85
A60P	9, 90	9 7/16x2 3/4x4 11/32	1	6.25	4.38
A42	1½, 63	9 1/16x2 1/8x4 3/8	1	6.70	4.50
Z60P	7½, 9, 90	2 3/16x8 15/16x3 13/16	1	6.25	4.38
Z60	1½, 90	7 5/8x2 1/8x3 3/4	1	5.25	3.68
A60	1½, 90	9 31/32x- 1/4x4 7/16	1	6.25	4.38
A50	6, 75	9 3/32x2 23/32x3 21/32	1	6.25	4.38
XX40	1½, 60	2 13/32x1 11/32x7 5/32	1	4.45	3.07
Z60	7½, 9, 90	2 3/16x8 15/16x3 15/16	1	6.25	4.38

FARM RADIO "A" BATTERIES

F2	3	11½x4x6 1/8	1	9.30	6.50

FARM RADIO "A" AND "B" BATTERIES

GD60	1½, 90	15 11/16x4 3/8x7 1/16	1	8.95	6.71
D60	1½, 90	10 11/16x4 5/16x6 13/16	1	8.95	6.71
D60	7½, 9, 90	9 7/8x4 1/8x7 3/16	1	10.95	8.21

FARM RADIO "B" BATTERIES

308PI	45	8 1/8x4 15/32x7 1/32	6	5.22	3.91
308SC	45	8 1/8x4 15/32x7 1/32	6	5.22	3.91
308PI	45	8 1/32x4 1/32x7 3/16	6	4.80	3.55
308SC	45	8 1/32x4 1/32x7 3/16	6	4.80	3.55
08PI	45	8 3/32x2 21/32x7 1/4	6	3.45	2.59
08SC	45	8 3/32x2 21/32x7 1/4	6	3.45	2.59

PHOTO-FLASH CELLS

5PF	22½	31/32x9 7/16x1 31/32	20	1.25	.87
0	1½	1 (dia.) x 1 15/16	12	.20	.13
0	1½	1 11/32 (dia.) x 2 35/64	12	.20	.13
0	1½	35/64 (dia.) x 1 31/32	24	.15	.0975

INDUSTRIAL AND ELECTRONIC "A" BATTERIES

BP	1½	2 21/32x1 5/8x4 1/32	5	.95	.65
BP	3	2 21/32x1 3/8x4 1/32	5	.95	.65
BP	6	2 5/8x2 3/8x4	10	.90	.61
2	3	1 11/32x2 29/32x2 5/16	10	.50	.32
2	4½	1 31/32x1 29/32x2 1/4	10	.60	.39
2	4½	2 15/32x1 13/16x2 21/32	10	.60	.39
	1½	1 29/32 (dia.) x 4 3/32	10	1.43	.95
BP	1½	1 19/32x2 27/32x2 11/16	6	1.40	.94
BP	3	1 5/8x1 13/16x2 11/16	6	1.40	.94
2BP	3	5 3/16x1 5/16x4 5/32	10	2.35	1.58

INDUSTRIAL AND ELECTRONIC "B" BATTERIES

Burgess No.	Volts	Size in Inches	Unit Pkg.	List Price	Net* Each
5156SC	22½	4 1/8x2 1/2x2 3/4	5	$2.30	$1.58
5308	45	4 1/16x2 9/16x5 1/8	5	3.35	2.31
4156	22½	3 17/32x2 1/8x2 21/32	5	1.97	1.39
Z30NX	45	3 1/32x1 7/8x4 19/32	5	3.10	2.15
W30	45	3x1 1/4x3 25/32	6	3.15	2.11
U200	300	2 3/4x2 9/32x3 7/8	1	11.00	7.70
U10	15	31/32x9/16x1 7/16	20	.95	.65
U15	22½	31/32x9/16x1 31/32	20	1.25	.87
U20	30	31/32x9 7/16x2 11/32	20	1.50	1.03
Y10	15	31/64x1/2x1 1/4	20	1.00	.68
Y15	22½	31/64x1/2x1 7/8	20	1.25	.87
Y20	30	31/64x1x1 1/4	20	1.60	1.10
Y20S	30	31/64x1/2x2 1/2	20	1.40	.96

INDUSTRIAL AND ELECTRONIC "C" BATTERIES

2370PI	4½	4 1/64x1 27/64x2 63/64	5	.96	.66
2370	4½	3 15/16x1 3/8x2 7/8	5	.96	.66
5540	7½	4x7/8x2 3/4	5	1.12	.77
5360	4½	2 13/32x27/32x2 21/32	5	.65	.45
A3BPX	4½	1 31/32x25/32x2 1/4	6	1.85	1.24
W5BP	7	2 31/32x25/32x1 3/8	6	1.95	1.29

IGNITION AND TELEPHONE BATTERIES

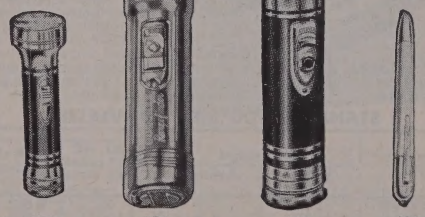
4FH	1½	2 5/8x2 5/8x4	12	.90	.60
4F2H	3	3 39/32x2 11/16x5 13/16	8	1.55	1.09
4F4H	6	8 5/16x2 13/16x5 13/16	6	3.60	2.45
4F5H	7½	7 5/16x3 31/32x5 13/16	4	4.50	3.13
4F6H	9	8 1/2x3 31/32x5 13/16	4	5.20	3.62
6 Ign.	1½	2 1/2 (dia.) x 6 5/8	12	.90	.60
6 Tele.	1½	2 1/2 (dia.) x 6 5/8	12	.85	.59
S461	6	10 1/2x2 3/4x7 13/32	6	3.75	2.51

FLASHLIGHT AND LANTERN BATTERIES

2	1½	1 31/64 (dia.) x 2 3/8	48	.15	.0975
1	1½	63/64 (dia.) x 1 15/16	12	.15	.0975
Z	1½	35/64 (dia.) x 1 31/32	24	.125	.08
7	1½	13/32 (dia.) x 1 3/4	24	.125	.08
F4H	6	2 3/8x2 3/8x3 15/16	12	.90	.61
4F2H	3	3 39/32x2 11/16x5 13/32	8	1.55	1.09
N	1½	7/16 (dia.) x 1 11/64	24	.10	.065
530	45	4 1/16x2 17/32x5 5/16	2	3.40	2.35

*In unit package.

FLASHLIGHT CASES AND LANTERNS



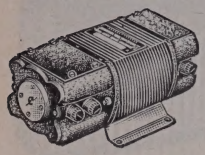
346 250 146 152

Burgess No.	Description	Unit Pkg.	List Price	Net* Each
146	2-cell, prefocused, maroon and chrome.....	6	$1.89	$1.26
346	2-cell baby prefocused. Same colors.....	6	1.70	1.13
250	2-cell focusing Range-finder. Chrome.....	4	2.25	1.53
152	Penlight. Chrome.....	12	.88	.59

*Standard package.

Carter CONVERTERS · GENEMOTORS · MAGMOTORS

NEW DUOVOLT 6/12 VOLT GENEMOTORS



Incorporates two separate six-volt windings, each having its own field. Six or twelve volt operation is obtained simply by connecting the four input leads in parallel or in series. May be transferred from one car to another regardless of battery voltage, without slightest impairment of transmitting or receiving quality, without replacing generator and without wiring modification of hookup. 3½" high, 4¾" wide, 8" long. Weight, 11½ lbs.

Carter No.	Input Volts	Input Amps.	Output Volts	Output Amps.	Output Volts	Output Amps.	Duty	Net Each
420VBN	5.5	26	11	13	400	.200	Con.	$64.50
450ABNS	6	29	12	14.5	400	.250	Int.	65.25
4037ABNS	6	41	12	20.5	400	.375	Int.	68.55
4228VBNS	5.8	33	11.6	16.5	420	.280	Int.	65.80
520ABNS	6	28	12	14	500	.200	Int.	65.25
520VBNS	5.5	31	11	15.5	500	.200	Int.	66.00
617VBNS	5.5	30	11	15	600	.170	Int.	66.00
624VBNS	5.7	46	11.4	23	600	.240	Int.	68.39

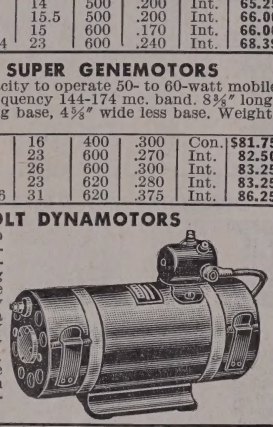
NEW DUOVOLT SUPER GENEMOTORS

Engineered for adequate capacity to operate 50- to 60-watt mobile transmitters in the HIGH frequency 144-174 mc. band. 8⅜" long, 4⅜" high, 5⅝" wide including base, 4⅝" wide less base. Weight, 16¾ lbs.

TAB430	6	32	12	16	400	.300	Con.	$81.75
TVBS627	5.5	46	11	23	600	.270	Int.	82.50
TVBS630	5.5	52	11	26	600	.300	Int.	83.25
TABS6228	6	46	12	23	620	.280	Int.	83.25
TVBS6237	5.8	62	11.6	31	620	.375	Int.	86.25

CHANGE-A-VOLT DYNAMOTORS

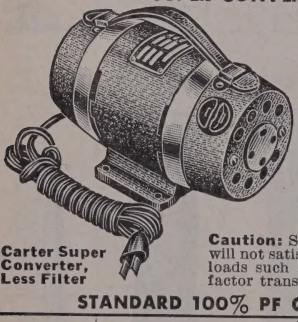
Operate 6 volt 2-way radio equipment from 12 volt systems without rewiring. Supplied complete with starting relay and switch, 12 volt fuse block and wiring to directly convert a 12 volt battery to a 6 volt radio supply. B615V delivers 15 amps continuously and 45 amps intermittent. 65% efficiency. Can also serve as battery equalizer when operating low voltage equipment.



Carter No.	Input* Volts	Input* Amps.	Net Each	Carter No.	Input† Volts	Input† Amps.	Net Each
B615V	12	11.5	$66.72	E128V	24	6.0	$66.72
E615V	24	5.7	66.72	J128V	28	5.3	66.72
J615V	28	5.0	66.72	C128V	32	4.6	66.72
C615V	32	4.3	66.72	HS128V	70	2.2	67.46
HS615V	70	2.1	67.46	D128V	115	1.3	67.46
D615V	115	1.2	67.46				

*Output 6 volts, 15 amps. †Output 12 volts, 8 amps.

SUPER CONVERTERS



Carter Super Converter, Less Filter

Carter Super Converter—Changes DC to AC for Amplifiers, Radios, High Power Factor equipment. Wherever DC to AC conversion is necessary, the Carter Super Converter provides an efficient and reliable source of AC power. Standard models are designed for high power factor, non-inductive loads such as amplifiers, radio receivers (requires filtered converter), etc. Ball bearing equipped—3600 rpm.

Caution: Standard Super Converters will not satisfactorily operate inductive loads such as AC motors, low power factor transformers, etc.

STANDARD 100% PF CONVERTERS

Carter No.	DC Input Volts	DC Input Amps.	Watts, AC at 60 cps, 115 v.	Net Each
D1040C	115	.7	40	$52.50
D1010C	115	1.7	100	54.00
D1015C	115	2.0	150	56.25
A1040C	6	15	40	53.25
A1010C	6	27	100	54.75
A1015C	6	40	150	57.00

Heavy Duty Super Converter. Continuous duty, less filter, 10¼" long, 4½" wide, 5" high. Weight 19 lbs.

D1020C	115	2.6	200	$65.62
D1025C	115	3.2	250	69.37
B1020C	12	30	200	67.50
B1025C	12	34	250	71.25

MANUAL FREQ'Y CONTROLLED SUPER CONVERTER

Designed for Ampex, Brush, Magnecord and Webster Tape Recorders for broadcast service. Output frequency can be maintained at 60 cy. with constant 70% PF load, ±10% input variation.

Carter No.	DC V. Input	Amps. Input	Output, W.	Net Each
AR1010CW4	6	35	130 w. load	$108.00
BR1010CW4	12	17	130 w. load	108.00
DR1010CW	115	2	130 w. load	99.00
BR1021CP	12	29	210 w. load	191.25

WIRE AND TAPE RECORDER CONVERTERS

Make and Model Number of Equipment	Carter Model, Voltage Input Net Each: 6-Volt	12-Volt	115-Volt
60 WATT MODELS			
Air King 750; Ampro 730-731	Size: 8¼" L. x 4½" W. x 5" H. Weight 13 lbs.		
Crescent H22A1, 903, 907			
Knight Wire	A1060CW 29 amps. drain	B1060CW 14 amps. drain	D1060CW 1 amp. drain
Web-Cor 80, 180, 228, 18			
Wilcox-Gay 8U12; Wireway			
Edison Voicewriter, VP (for 115 Volt DC only)	$54.00	$54.00	$53.25
Dictorel	A1060C	B1060C	D1060C
Pierce 560	$54.00	$54.00	$53.25
80 WATT MODELS			
Bell Record-O-Fone RT50, RT65B, RT75	Size: 8¼" H. x 4½" W x 5" H. Weight 13 lbs.		
Crestwood CP201, 402, FME37B			
Gray Audiograph			
Eicor 1000-15-115-400-230			
Gen. Ind. Foundation Unit*	A1080CW 31 amps. drain	B1080CW 15 amps. drain	D1080CW 1.5 amps. drain
Knight Tape, Pierce 55B			
Masco D37, LD37, DC37			
Pentron T3, 9T3, 9T3C, CT1, TR4, HT225	$54.37	$54.37	$53.62
Revere T100, T500, LR-1, T900, T1100, T1400			
Web-Cor 210-1			
Wilcox-Gay 1C10, 2C10, 3F10, 3A10, 4A10, 4B10, 4C10			
Dictaphone Time-Master	A1080C	B1080C	D1080C
	$54.37	$54.37	$53.62
80 WATT MODELS WITH FREQUENCY CONTROL			
Ampex 600	Size: 8¼" x 4½" x 7½" H.; Wt. 15 lbs.		
	AR1080C $99.37	BR1080C $99.37	DR1080C $98.63
80 WATT MODELS WITH FILTER			
Revere TR200, TR600, TR800, TR20	Size: 8¼" x 4½" x 7½" H., Wt. 15 lbs.		
Masco LD37R	A1080CWX	B1080CWX	D1080CWX
Ultratone PT-9	$73.12	$73.12	$72.38
100 WATT MODELS WITH FREQUENCY CONTROL			
Ampex 620A with 600	Size: 8¼" x 4½" x 7½" H.; Wt. 15 lbs.		
Berlant BR-1	AR1010C 27 amps. drain	BR1010C 15 amps. drain	DR1010C 1.7 amps. drain
	$99.75	$99.75	$99.00
130 WATT MODELS			
Brush BK411, BK414, BK442, BK4430, BK455	A1090CW4 35 amps. drain	B1090CW4 17 amps. drain	D1010CW 2 amps. drain
RCA Model SRT-301			
Web-Cor 2010, 2030	$61.50	$61.50	$54.00
VM 700	AX1090CW4	BX1090CW4	DX1090CW
	$63.75	$63.75	$56.25
Ampro. Celeb. 755, 756	Sizes: 6 and 12-volt models 10¼" x 4½" x 5" H., Wt. 18 lbs. 115-volt models 8¼" x 4½" x 5" H., Wt. 13 lbs.		
Berlant Con. 1401-1501			
Brush BK401, BK403			
Crescent H19A1			
Magnecord PT6, PT6JA, PT63, Voyager M30, M33, M34	A1010CW4 35 amps. drain	B1010CW4 17 amps. drain	D1010CW 2 amps. drain
Pierce 260, 265, 270			
Revere T700, T700D, T10, T11	$63.00	$63.00	$54.00
Webster Ekotape 101, 109, 110, 114, 205			
160-210 WATT MODELS			
Berlant 20/20	Size: 11⅝" x 6¾" x 7¼" H. Weight 38 lbs.		
	ARS1016CP $191.25	BR1016CP $191.25	DR1016CP $191.25
Ampex 400A-401A	Not Recommended	BR1021CP 29 amps. drain	DR1021CP 2.5 amps. drain
Magnecord Binaural			
TDC ethereotone 130		$191.25	$191.25
300-500 MODELS WITH FREQUENCY CONTROL			
Ampex 350	Size 12⅝" x 6¾" x 7¼" H. Weight 54 lbs.		
Magnecord M80, M81, M90	Not Recommended	BRS1040CP $216.37	DR1030C5P $213.75

*Including average recorder-amplifier.

68-55C

Power Supply Equipment

ATR ELIMINATORS AND INVERTERS

"A" BATTERY ELIMINATORS

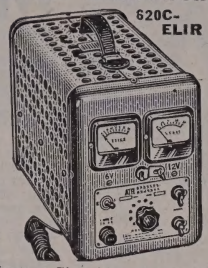
6 VOLT OR 12 VOLT

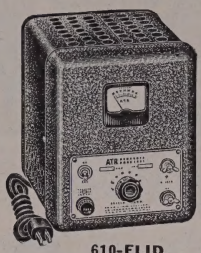
For testing and operating auto radios and DC apparatus on regular 105-125 volts, 50/60 cps lines. Equipped with Full-wave dry disc selenium rectifier assuring noiseless, interference-free operation, long life and reliability. Delivers filtered DC. Have suitcase-type handles for easy portability.

Type 610-ELID—Rated output 6 volts at 10 amps continuous. Size: 6½"x9⅛"x8½". Shpg. Wt., 22 lbs. Net Each..... **$35.64**

Type 610C-ELID—Rated output 6 volts at 10 amps continuous or 12 volts at 6 amps continuous. Size: 6½" x 9⅛" x 8½". Shipping Weight, 22 lbs. Similar to 610-ELID. Net Each..... **$39.95**

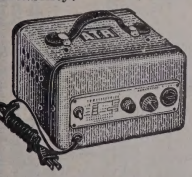
Type 620C-ELIR—Uses dual rectifiers. 6 volts at 20 amps or 12 volts at 10 amps continuous. Either output by terminal switching arrangement. Size: 6½" x 12⅞" x 8½". Shipping Weight, 33 lbs. Net Each..... **$56.34**





ATR TAPE RECORDER INVERTERS

Especially designed for operating 110-volt AC radios, recorders, dictating machines, small amplifiers, and other devices with wattage within their output rating. Well filtered for quiet operation. Output of inverters 110 volts 60 cycles. Have suitcase-type handles (not illustrated) for easy portability.



ATR No.	DC V. Input	Shpg. Wt. Lbs.	Wattage Inter.	Wattage Cont.	Net Each
6-DME	6	5	40	30	$11.97
6-RME	6	12	60	50	23.70
6-RSE	6	19	80	65	35.97
6-RHF	6	25	125	100	41.97
6-HSH	6	34	150	125	65.70
12-DME	12	5	50	40	11.97
12-RME	12	12	100	80	23.70
12-RSE	12	19	125	100	35.97
12-RHF	12	25	150	125	41.97
*28-RME	28	12	100	80	39.00
*28-RSE	28	19	125	100	45.00
*28-RHF	28	25	150	125	57.00
32-RME	32	12	100	80	34.50
32-RSE	32	19	150	100	41.70
32B-RHF	32	30	200	180	53.70
50-RSE	50	19	150	100	47.70
110-RME	110	12	150	100	28.50
110-RSE	110	19	250	150	35.97
220-RSE	220	19	250	150	41.70

*Recommended for 24-volt systems.

ATR TELEVISION INVERTERS

Specially designed and carefully adjusted for operating TV receivers from DC voltages in vehicles, ships, trains, planes and DC districts. Suitable for use with all types of electronic equipment where precise output frequency is required. These units have specially adjusted ATR vibrators installed in them to provide the precisely adjusted output power frequency required for the operation of TV sets. They are exceptionally well filtered to insure interference-free reception. They are equipped with four-point voltage regulators. The operating efficiency is in excess of 85%. Output of inverters 110 volts, 60 cycles. Have suitcase-type handles (not ill.) for easy portability.

ATR No.	DC V. Input	Shpg. Wt. lbs.	Wattage Inter.	Wattage Cont.	Net Each
6T-HSH	6	34	150	125	$71.70
12T-HSH	12	34	250	200	71.70
*28T-HSH	28	34	250	200	87.00
32BT-RHF	32	30	200	180	56.70
32T-HSH	32	34	325	225	81.00
110T-RSE	110	19	250	150	39.00
110AT-RHF	110	25	325	250	47.85
110BT-RHF	110	30	500	350	63.45
110T-HSH	110	34	600	400	81.00
220T-RSE	220	19	250	150	45.00
220T-HSH	220	34	500	300	93.00

*Recommended for 24-volt systems.

GENERAL ELECTRIC TUNGAR RECTIFIER BULBS

General Electric Tungar Rectifier Bulbs are manufactured of the finest materials available and are laboratory-tested before being used. These bulbs were developed over thirty years ago, and constant research has improved their design, increased the efficiency, and trebled the operating life.

Tungar bulbs make possible an excellent DC power supply, free from vibration and noise. They operate with very low voltage drop and consequent high over-all efficiency.

Tungar bulbs are ideal for battery chargers ranging in size from the small home type to the large garage type which handles multiple batteries.

TUNGAR RECTIFIER BULBS—ARGON, HALF-WAVE

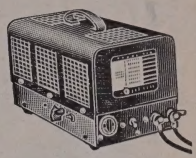
G.E. No.	Dimensions In Inches L.	Dimensions In Inches D.	G.E. Type Socket No.	Recommended Max. Output DC Amps	Recommended Max. Output DC Volts	Net Each
12X825	4¼	2⅛	278768	2.0	75	$4.12
189048	7	3	217967	6.0	60	4.50
189049	7	3	217967	6.0	90	4.50
206501	4¼	2⅛	Std. Edison	2.0	75	4.12
217283	8⅝	3¾	217967	15.0	60	9.00
MERCURY-ARGON, FULL-WAVE						
20X672	4⅝	2⅛	K3778926	5.0	20	5.25
76X13	9¼	3½	217967	20.0	75	13.50
99X44	7	3	217967	10.0	25	5.25
99X45	9¼	3½	217967	20.0	25	13.50
MERCURY-ARGON, HALF-WAVE						
16X897	6	2⅛	M5556072G1	2.0	250	11.25
45X674	7⅜	3⅛	M5556072G1	6.0	250	13.50

668X-55A

POWERCON POWER SUPPLIES

BY CORNELL DUBILIER

VIBRATOR CONVERTERS

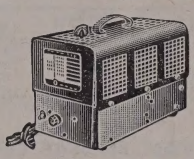


Vibrator converters for operating 110 volt 60 cycle AC appliances. Provide smooth dependable operation of radios, amplifiers, intercoms and other high power factor devices. Completely RF filtered for best reception of broadcast, shortwave and FM. Models 6R5, 6R10, 12R8 and 12RU15 are equipped with 4-way adjustable load control. Model 110R10 contains 3-position terminal board permitting adjustment of output voltage for 40, 70 and 100 watt loads.

Vipower No.*	Watts Int.	Watts Cont.	Size WxLxH In.	Net Each
6R5	55	50	6¾x 7¾x5⅞	$28.95
6R10	125	100	7 x12⅝x7½	41.07
12R8	120	80	6¾x 7¾x5⅞	28.95
12RU15	200	150	7 x12⅝x7½	54.48
110R10	150	100	6¾x 7¾x5¼	27.57

*First Figure in Model number indicates input voltage.

TV CONVERTERS



Designed to meet critical power conversion requirements of TV. Supply 110 volt 60 cycle AC from 110 volt DC source. Completely RF filtered for AM FM, short-wave and TV. Model 110RA15 includes the "Phantomswitch" and TV frequency control. Model 110RT35 features unique Du-Add plug-in construction for the addition of "Phantomswitch". Model 110RT35 includes the "Phantomswitch" and fully automatic power conversion.

Conv't'r No.	Watts Int.	Watts Cont.	Size WxLxH Ins.	Net Each
110RA15	250	150	6¼x12¼x7½	$33.66
110RT35	500	350	7½x14 x8⅝	86.10

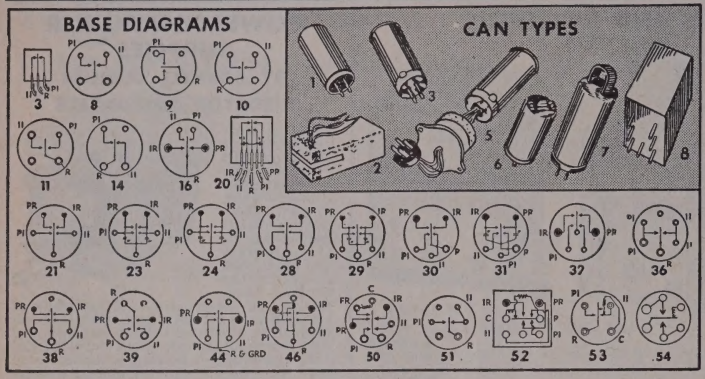
ELECTRO PRODUCTS LABS

MODEL D-612 DC SUPPLY

6 to 12 volts at the flick of a switch. Dual range of 0-8 volts and 0-16 volts. Delivers 10 amperes continuous duty up to 12 volts and 20 amps intermittent current rating. Less than 5% AC ripple over all rated ranges. Superior regulation and filtering by choke, input type filter. Patented EPL conduction cooling produces many more times cooling surface than standard selenium plates. Provides greater margin of safety, longer rectifier life and greater current carrying capacity. Ammeter registers 0-10 amps, and voltmeter 0.20 volts. Sturdy 8 x 12 x 8½" 18 gauge steel cabinet in blue hammerloid finish. Operates on 110-120 volt, 50-60 cycle AC input at 250 watts with 10 amp, 12 volt load. Shipping Weight, 22 lbs.

EPL Model D-612—Net Each.. **$39.95**

Vibrators and Buffer Condensers



P.R. MALLORY & CO. Inc.

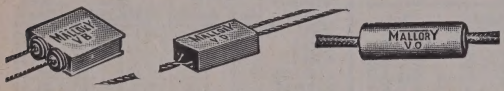
MALLORY

Mallory Vibrators are assembled from carefully matched materials built to extremely close tolerances assuring perfect balance and precise operation. Crude rubber insulation and heavy cans effectively deaden sound and vibration. Every Mallory vibrator is tested for output, starting voltage and wave form. If Mallory type number is not known refer to diagram at left or write for

VIBRATOR GUIDE, 15c

FREE when request is included with order for Mallory Vibrators.

VIBRATOR BUFFER CAPACITORS



Type VB is oil impregnated and housed in small rectangular metal case. Section is insulated from case. Type VD is dual wax impregnated unit in small rectangular waxed cardboard case. Type VO is wax impregnated and filled in oval waxed tube. Leads on types VB and VD are bare tinned copper. Type VO has heavy copper braid leads. Shipping weight, 3 oz.

Mallory Number	Cap. Mfd.	Working Volts D.C.	Size W-L-H	Net Each
VB470	.0075	1600	5/16 x 5/8 x 7/8	$0.66
VB471	.01	1600	5/16 x 5/8 x 7/8	.69
*VD491	.0008-.0008	1600	5/16 x 5/8 x 1 1/16	.39
VO480	.5	120	7/16 x 3/4 x 2 1/8	.39

*Replacement for Motorola models using dual .0008 at 1600 Volts.

1600 VOLT PLASKAP CAPACITORS

Triple sealed plastic tubular capacitors. Unique impregnant results in stable capacity, low power factor and high insulation resistance over a wide range of temperatures. Will operate continuously at 85° C. Two bare tinned copper leads are sealed by MALLOCENE. Each lead is fastened directly and solidly to the cartridge. Lead to outside foil is clearly marked. Mounting by the leads is adequate due to the capacitor's small size, light weight and mechanical strength. If desired, TH clips of applicable size may be used. Yellow case, legible part numbers and ratings.

Mallory No.	Cap., Mfd.	Size, Ins. Dia.	Size, Ins. Lgth.	Net Ea.
PT1621	.001	3/8	1	33c
PT1622	.002	3/8	1	33c
PT16222	.0022	3/8	1 1/4	33c
PT1623	.003	3/8	1 1/4	33c
PT16233	.0033	3/8	1 1/4	33c
PT1624	.004	3/8	1 1/4	33c
PT16247	.0047	3/8	1 1/4	33c
PT1625	.005	3/8	1 1/4	33c
PT1626	.006	7/16	1 1/4	33c
PT1627	.007	7/16	1 1/4	33c
PT16275	.0075	7/16	1 1/4	33c
PT1628	.008	7/16	1 1/4	36c
PT1611	.01	1/2	1 1/4	36c
PT16115	.015	1/2	1 1/2	36c
PT1612	.02	1/2	1 1/2	36c
PT16122	.022	5/8	1 7/8	36c
PT1613	.03	5/8	1 7/8	36c
PT1614	.04	5/8	1 7/8	42c
PT1615	.05	5/8	1 7/8	42c
PTD-16115*	.015	5/8	1 7/8	48c

*Two sections, .015 mfd. each.

COMPLETE VIBRATOR SPECIFICATIONS

Mallory No.	†	Volts	Type	Base Diag.	Can Type	Size, Inches	Net Each
245*	1	6	Syn.	21	1	1 1/2 x 3 1/4	$4.62
246*	1	6	Syn.	38	1	1 1/2 x 3 1/4	4.62
G248	.....	12	Syn.	44	1	1 1/2 x 3 1/4	5.13
249*	1	6	Syn.	32	1	1 1/2 x 3 1/4	4.62
273C*	.....	6	Syn.	29	1	2 x 4 1/2	5.49
294	.....	6	Int.	8	1	1 1/2 x 3 1/4	2.94
F294	1	32	Int.	8	1	1 1/2 x 3 1/4	4.29
298	.....	6	Int.	51	1	1 1/2 x 2 7/8	3.81
505P	.....	6	Int.	8	1	1 15/16 x 3 1/2	2.94
506P	.....	6	Int.	36	1	1 15/16 x 3 1/2	3.81
509P	.....	6	Int.	8	1	1 1/2 x 2 7/8	2.49
716*	.....	6	Syn.	30	7	1 15/16 x 3 1/2	4.62
725C	1, 2	6	Syn.	32	1	1 1/2 x 3 1/4	5.13
G725C	1, 2	12	Syn.	32	1	1 1/2 x 3 1/4	5.97
742	.....	6	Syn.	32	1	1 1/2 x 2 7/8	4.62
743	.....	6	Syn.	38	1	1 1/4 x 3 1/4	4.62
748	.....	6	Syn.	44	1	1 1/2 x 2 7/8	4.62
G749C	1, 2	12	Syn.	21	1	1 1/2 x 3 1/4	5.97
W759	3	4	Syn.	21	1	1 1/2 x 2 7/8	4.95
825C	1, 2	6	Int.	8	1	1 1/2 x 3 1/4	4.14
826C	1, 2	6	Int.	8	1	1 1/2 x 3 1/4	3.81
F826C	1, 2	32	Int.	8	1	1 1/2 x 3 1/4	4.62
G826C	1, 2	12	Int.	8	1	1 1/2 x 3 1/4	4.62
839	.....	6	Int.	8	1	1 1/2 x 3 1/4	3.81
854*	.....	6	Int.	11	1	1 1/2 x 3 1/4	2.94
859*	1	12	Int.	8	1	1 1/2 x 2 7/8	2.82
G859	.....	4	Int.	8	1	1 1/2 x 2 7/8	3.30
W859	3	6	Int.	8	1	1 1/2 x 2 7/8	2.94
860	.....	6	Int.	14	7	1 1/2 x 3 1/4	2.94
870*	.....	12	Int.	14	1	1 1/2 x 2 7/8	2.94
G874*	.....	6	Int.	55	9	1 1/2 x 3 1/4	2.94
903M	.....	6	Int.	8	1	1 1/2 x 2 7/8	2.49
953W	.....	6	Syn.	16	1	1 1/2 x 3 1/4	4.62
954	.....	6	Syn.	39	1	1 1/2 x 3 1/4	4.62
1100*	1	6	Int.	8	1	1 5/16 x 2 3/8	2.94
1501*	1	6	Int.	53	1	1 1/2 x 2 7/8	3.81
G1501	1	12	Int.	53	1	1 1/2 x 2 7/8	4.14
T4002	.....	2	Syn.	52	8	1 1/2 x 2 1/8 x 1 1/2	7.02
T4003	.....	2	Syn.	50	1	1 5/16 x 2 1/8	5.88
4501	.....	6	Int.	53	1	1 1/2 x 2 7/8	3.81
4502	.....	6	Int.	54	1	1 1/2 x 2 7/8	4.14
4546	.....	6	Syn.	38	1	1 1/2 x 3 1/4	4.62
4548	.....	6	Syn.	44	1	1 1/2 x 3 1/4	4.62
4549	.....	6	Syn.	32	1	1 1/2 x 3 1/4	4.62
GC7	4	Ground Cup					.27
AR-1	5	Adapter					.90
SK-1	6	Socket Kit					1.25

†—**1:** For new equipment design only, other types for replacement purposes only. **2:** Hermetically sealed. **3:** Designed for photoflash applications. **4:** A grounding cup for 1 1/2" dia. vibrators which makes low RF ground between vibrator can and power supply. **5:** Five special sockets for Practical Vibrator tester. Supplied as complete kit only. *—These types cover 90% of all replacement needs. **Int.**—Interrupter. **Syn.**—Synchronous.

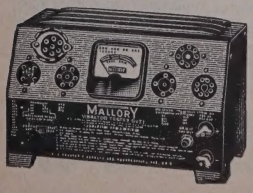
MALLORY VIBRATOR DEALS

Service 75% of replacement needs. Simplifies inventory control provides extra space. Cabinets firmly stack together. Metal cabinet at no extra cost. Either deal contains two each of the following Buffers: PT1611, PT1625, PT1626, PT1627, PT1628 and PT16275.

Mallory Deal No. 2448—Includes capacitors and one each 248, 716, 859, 870, 1100 and three 859 vibrators. Net Each . . . **$28.17**

Mallory Deal No. 2450—Includes above capacitors and two each 248, 870, 1100, 1501 and three 859 vibrators. Net Each . . **$29.43**

MALLORY 6 VOLT AND 12 VOLT VIBRATOR TESTERS



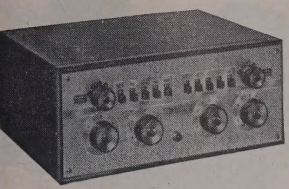
As either 6X5 or OZ4 rectifier tubes may be plugged into an octal socket on the front panel, interrupter vibrators can be tested in conjunction with the rectifier tube with which they normally work. Defective vibrators can be readily determined by the substitution method. Self-rectifying vibrators are tested by removing the rectifier tube. Either shunt or separate drive vibrators of any frequency from 100 to 250 cycles can be tested. The 6VT1 or 12VT1 Testers should be used in conjunction with a filtered DC power supply providing at least 4 amps continuous capacity with a closely adjustable DC output voltage control (1/10 volt steps or less from 5 to 6 or 10 to 12 volt). A push button switch is provided to accurately adjust the DC input voltage for both "start" and "condition" test. Upon satisfactorily passing the "start" test, the condition of the vibrator (or rectifier tube) being tested is readily determined by reading directly on "Good-Bad" meter scale. 6 3/4" x 10 3/8" x 5 1/2" deep. Shipping Weight, 8 lbs.

Mallory Model 6VT1—Tests 6 volt vibrators. Net Ea.. **$29.50**

Mallory Model 12VT1D—For either 6 or 12 volt vibrators. Net Each **$34.95**

McIntosh Amplifiers

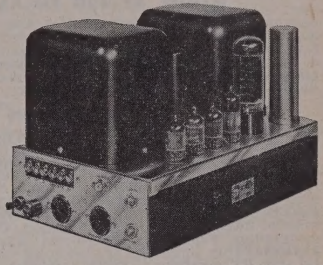
MODEL C-8 AUDIO COMPENSATOR



Professional quality equalizer pre-amp. Serves as a control unit for any McIntosh amplifier or may be used as a front end self powered unit for other quality amplifiers. Features 5 turnover and 5 roll-off slide switches. Turnover: 1300, 950, 750, 580, 400, and 280 cps. Roll-off: Flat, 5, 10, 15, 20, 25 db. Any recording curve may be compensated for by the literally hundreds of switch combinations possible. Other features and controls: 5-position aural compensator adjusts frequency response to individual listening tastes, acts as aloudness control; 5-position Rumble suppressor, Variable Bass and Treble controls; On-off Volume; 5-position Input Selector. 5 inputs: 2 with set levels for tape, tuners, etc.; 1 low impedance mike with set level; 1 high level magnetic phono; 1 low level magnetic phono. Auxiliary Output independent of volume, bass, and treble controls, provided to drive HI-impedance input of tape recorders. Tubes, 3-12AX7. Gold finished panel. Powered by any McIntosh amplifier, or self-powered.

Model C-8—Less cabinet and power supply. 4½" H. x 11" L. x 7½" D. Shipping Weight, 8 lbs. Net Each.... **$88.50**
Model C-8M—With Mahogany cabinet, less power. Net **$96.50**
Model C-8P—Self-powered, less cabinet. Net Each.... **99.50**
Model C-8PM—Self-powered, with cabinet. Net Ea.. **$107.50**

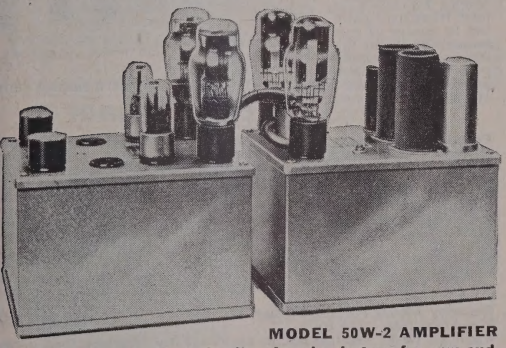
MODEL MC-30 WATT AMPLIFIER



A new basic amplifier with outstanding characteristics. One of the most important of these is the distortion of less than 0.33% at a full 30 watt output, 20-30,000 cycles. **Intermodulation:** Less than 0.5% below 60 watts. **Range:** At 30 watts plus or minus 0.5 db, 10-50,000 cycles; at 15 watts, plus or minus 1 db, 10-100,000 cycles. **Noise and Hum:** 90 db or more below rated output. **Damping Factor:** 12 or better for 4, 8 and 16 ohm outputs. Two inputs, 0.5 volt, 500K with gain control; 2.5 volts, 130K. Output impedance: 4, 8, 16 and (600 ohm balanced). **Tubes:** 5U4GA rectifier, 12AX7 input amplifier, 12AU7 phase inverter; 12BH7 voltage amplifier, 12AX7 driver, 2-1614 outputs. Chrome plated chassis, over all size 13" x 8" x 8". Complete with tubes, connectors, and instructions. Shipping Weight, 33 lbs.

McIntosh Model MC-30—30 Watt Amplifier—Net Each. **$143.50**

MODEL 50W-2 50 WATT HIGH FIDELITY AMPLIFIER



MODEL 50W-2 AMPLIFIER

Plug-in input and output circuits, also plug-in transformers and pre-amplifiers available. Provides external power supply for McIntosh C104A Equalizer Pre-Amplifier below. Transformers potted for long life, all other circuits available for service and check.

Additional Equipment	Net Each
M-107 Input Transformer, 30 to 250 and 600 ohms...	**$23.00**
M-108 Bridging Transformer.....	**20.00**
B-100A Pre-Amplifier.....	**12.50**
C-100 Equalizer-amplifier (NAB standard).....	**20.00**
L-104 Portable cover for 50W-2 amplifier.....	**$22.50**
L-101 Rack Mounting Assembly complete with switch.....	**12.50**

The McIntosh amplifier circuits provides practically 100% coupling between primary windings of the output transformer, by winding the primary wires together or, bifilarly. Static magnetic fields due to DC plate current are cancelled and the AC fields add in phase in the McIntosh circuit. Because of this, the high efficiency of class "B" amplification can be used for the first time with high quality performance. Wave form distortion due to switching transients between each half of the class "B" amplifier is eliminated at any audio frequency. The output tubes may be considered to use the same winding or to "take turns" on a single winding instead of the conventional condition of 1 primary for each tube. The McIntosh hasan inherently large advantage over conventional circuits. By bringing the putput tubes electrically four time closer together, the impedance is ¼ that of the conventional circuit.

SPECIFICATIONS

Gain: Basic Amplifier 40db, 70db with pre-amp, 90db maximum with transformer. **Frequency Range:** 20 to 20,000 cycles, ±.1 db. 10 to 100,000 cycles, ±3db. **Distortion:** less than 1%, 20 to 20,000 1%, 20 to 20,000 cycles for instantaneous peak power to 100 watts (50W-2). **Damping Factor:** 10 or better. **Input Impedance:** 100,000 ohms. With transformer 50, 250, 600 or 20,000 ohms balanced with connections to octal plug. Uses Grain Oriented cores to minimize low level distortion and save weight.

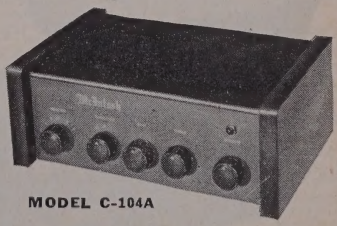
Power Output: 50 watts continuous, 100 watts instantaneous peak; 90 watts intermittent, 180 watts instantaneous peak intermittent middle frequencies. **Efficiency:** final stage 60% at 50 watts, 76% at 90 watts. **Noise Level:** 90 db below full output, 70db when preamp is used. **Tubes:** 2-5U4G; 1-12AX7; 2-6J5; 2-6L6G or 5881. **Dimensions:** Consists of 2 units, power supply and amplifier, each 8⅛" x 6¾" x 5¼". **Shipping Weight:** 60 lbs. **Power Consumption:** 185 watts at 50 watts, 120 watts zero signal. 117 volts, 60 cycles AC.

McIntosh Model 50W-2 Amplifier—Net Each..... **$249.50**

MODEL C104A EQUALIZER PRE-AMPLIFIER

Will deliver 4 volts at less than 0.3% from 20-20,000 cps, for any setting of the equalizer. Completely free from impulse types of distortion. Stable feedback amplification permits full adjustment of either treble or bass controls without any amplifier instability whatsoever. **Bass Accentuate:** approx. 20 db. **Bass Attenuate:** approx. 20 db independent of treble control. **Treble Accentuate:** approx. 15 db. **Treble Attenuate:** approx. 20 db independent of bass control. **Input Channels:** (1) TV audio, .01 to 20 volts; (2) FM-AM tuner, .01 to 20 volts; (3) Low Level Mike, .002 to .06 volts; (4) High level magnetic cartridge, .01 to 0.3 volts; (5) Low level magnetic cartridge, .002 to .06 volts. Master Volume Control supplied with connector to obtain power from main amplifier and connect Equalizer output to power amplifier. Additional receptacle for connecting the amplifier so that the switch on the control unit will turn both units on and off. 11" wide x 7¾" deep x 4½" high—wood enclosure dimensions. Control unit only, 10" x 7½" x 3¾". Allows up to 30 foot separation between C104 and power amplifier.

McIntosh Model C104A—In mahogany finish wood enclosure. Net Each..... **$67.50**
McIntosh Model C104—Control unit only, without enclosure. Net Each..... **$59.50**



MODEL C-104A

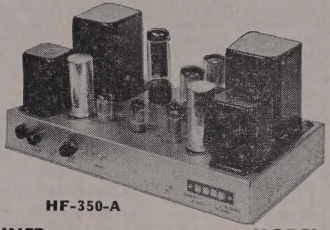
MODEL D-101 POWER SUPPLY

The new McIntosh D-101 is a versatile power supply. Used whenever a separate power supply is required to power the C104 above, when the McIntosh Pre-Amplifier Equalizer above is to be operated as a remote control panel at a distance greater than 30 feet from the power amplifier. Also useful for a general power supply. The power transformer and rectifier tube are capable of delivering DC current up to 40 ma., and by properly modifying the filter circuit, the usefulness of the D-101 can be extended to this increased current rating. The ripple frequency voltage output level from the D-101 is less than 800 microvolts. Fitted with a 110 volt receptacle and power plug. Mounting template supplied with each unit.

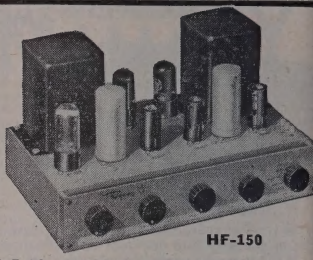
McIntosh Model D-101—Net Each..... **$19.50**

Regency High Fidelity Equipment

AF-250



HF-350-A



HF-150

MODEL AF-250 FM-AM TUNER

A supreme quality professional FM-AM Tuner. Utilizes genuine Armstrong circuit with two limiters. Separate FM and AM circuits from antenna to output. AFC on FM provides maximum fidelity at all times. Front panel of beautiful black cast polystyrene over black krinkle steel with escutcheons and knob in gold-color satin finish. Panel lights indicate band in use.

SPECIFICATIONS

FM CIRCUIT: Sensitivity: 2 μv 20 db quieting; **Band Width:** 200 KC at 3 db. AFC removed by pushing tuning knob. **Output:** 2 volts 5 μv, 23 KC signal deviation. **Frequency Response:** 20 to 40,000 cps $\pm$1 db. **Antenna:** 300 ohm. **Tubes:** 1-6BK7A Cascode RF, 1-6BC5 Mixer, 1-6BK7A Osc. and AFC, 2-6BJ6 IF Amplifiers, 2-6AU6 Limiters and 1-6AL5 Discriminator. **AM CIRCUIT: Sensitivity:** 5 μf at 20 db sn/n. **Band Width:** 10 KC at 3 (db-whistle) filter included, 30 db rejection. **Output:** 2 volts with 30% modulation. **Frequency Response:** Rapid roll off 6000 cps. **Antenna:** Iron core loop, provision for external antenna. **Tubes:** 1-6-BJ6 RF amplifier, 1-6BE6 converter, 1-6BD6 IF Amplifier, 1-6AL5 2nd deflector and AVC amplifier. **Power Supply and Output Tubes:** 1-5Y3GT rectifier and 1-12AU7 amplifier and cathode follower. **OPERATION: Power Supply:** Uses 105-120 volts, 50-60 cycles AC, 75 watts. **Output:** 2 volts from cathode follower, low impedance at source. **Hum Level:** 70 db down from 2 volts output. **Chassis Size:** 15⅞″ wide x 7¼″ high x 9″ deep, weighs 20 lbs. Shipping Weight 25 lbs.

Regency Model 250 AM-FM Tuner—Net Each..... **$250.00**

MODEL HF-350-A HIGH FIDELITY AMPLIFIER

A high quality, self-contained 30-watt Amplifier with a flat response from 20 to 40,000 cps. Entirely separate from the pre-amplifier for better performance. Each unit is powered separately for greater flexibility in operation.

SPECIFICATIONS

Chassis and Dimensions: Anodized aluminum chassis 15⅛″ x 8″ x 7″, net weight 23½ lbs. **Power Supply:** 105-120 volts, 50-60 cycle AC, consuming 160 watts. **Input Impedances:** 500,000 ohms. **Type Connector:** Phono pin jack. **Output Impedances:** 4, 8, 16 ohms. **Type Connector:** Screw terminal. **Frequency Response:** 20 to 40,000 cps. **Intermodulation Distortion:** Less than 2% at 30 watts (40 cps and 7000 cps 4:1) **Output:** 30 watts rated with 60 watts instantaneous peak output. **Input Sensitivity** for full output: .4 volts. **Tubes:** 1-12AU7 P.P. voltage amp., 1-12BH7 P.P. Driver, 2-5881 P.P. Output, 1-5U4GA Rectifier.

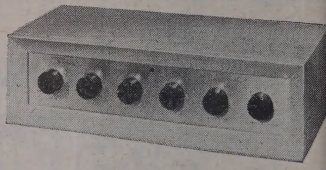
Regency Model HF-350-A High Fidelity Audio Amplifier—Net Each..... **$134.50**

MODEL HF-150 AUDIO AMPLIFIER

Complete Hi-Fi Audio Amplifier with pre-amp and power supply **Output:** 12 watts rated, 25 peak. **Distort.:** Less than 2% 40 cp and 7000 cps 4:1 at 12 watts. **Hum:** -60 db in phono pos. **Damp Factor:** 8. **Freq. Resp.:** 20 to 40,000. **Equal. Range:** $+17$ to -2 db at 30 cps; $+13$ to -20 at 20,000 cps. **Gain:** 70 db in phon pos. to 16 ohm load. **Input Imped.:** Mag. p/u and 2 hi imped Phono pin jack connector. **Output Imped.:** 4-8-16 ohms. Screw terminal connector. **Tubes:** 2-12AX7, mag. p/u amp.-compensato and phase inverter; 1-12AU7, amp. and equalization; 2-6V6GT p.p. output stage; 1-5Y3GT rect. **Size:** 8⅛″ x 13¼″ x 7″. Uses 7 watts on 105-120 v. 50-60 cy. AC. Shpg. Wt. 20 lbs.

Regency Model HF-150 Audio Amplifier—Net Each.. **$99.50**

MODEL HF-350-P PRE-AMPLIFIER



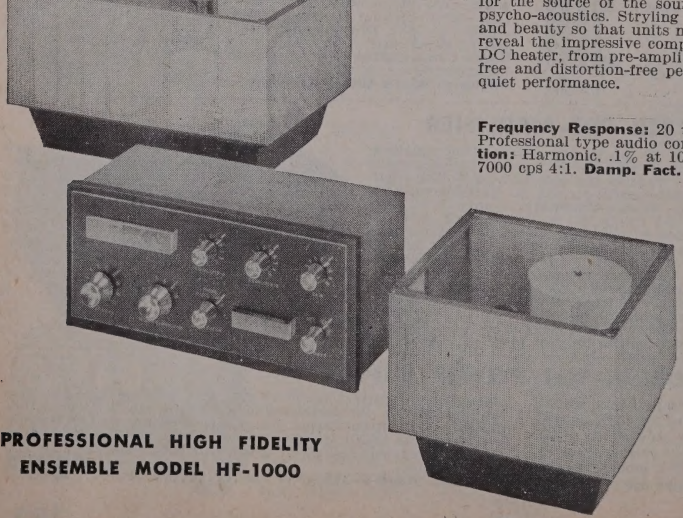
A self-contained ultra high quality audio pre-amplifier with equalization flexibility second only to Model HF-1000. Matched for use with Model HF-350-A at left. Beautiful cabinet in choice of mahogany or blond finished wood. The gold-color satin finished panel enhances the beauty of the wood. Cabinet measures only 16″ wide x 4¾″ high x 7½″ deep.

SPECIFICATIONS

Frequency Response: 20 to 40,000 cps. **Intermodulation Distortion:** .1% at 2 volts output (40 cps and 7000 cps 4:1). **Crossover Frequencies:** Variable. **Equalization Range:** $+18$ to -20 at 30 cps, $+14$ to -20 db at 20,000 cps. **Input Impedances:** 1-47,000 ohms and 2 at 100,000 ohms. Phono pin jack connector. Cathode follower output, pin jack connector. **Output:** 2 volts rated, 4 volts instantaneous peak. **Input Sensitivity:** 46 db gain. **Tubes and Functions:** 4-12AX7 voltage amplifiers, 1-6X4 rectifier. **Controls:** Gain-Off, On, Loudness, Bass, Treble, Input Selector, Record Compensator. **Power Supply:** Consumes 30 watts on 105-120 volts, 50-60 cycle AC. **Size:** Cabinet 16″ x 4¾″ x 7½″; chassis 15″ x 7″ x 4¼″. Cadmium plated steel chassis. Weight in cabinet 9 lbs. Shipping Weight 12 lbs.

Regency Model HF-350-P High Fidelity Pre-Amplifier—Net Each..... **$154.50**

Regency Hi-Fi Equipment is approved by Underwriters Laboratories Inc.



The ultimate in high fidelity developed to meet the requirements of the discriminating music lover. Unusually flexible controls allow adjustment for the source of the sound PLUS adjustment for room acoustics and psycho-acoustics. Styling in black and gold color accentuates simplicity and beauty so that units need not be housed in cabinets. Plate glass tops reveal the impressive components. Separation of power supply, including DC heater, from pre-amplifier and amplifier affords the maximum in hum-free and distortion-free performance. Deposited carbon resistors provide quiet performance.

SPECIFICATIONS

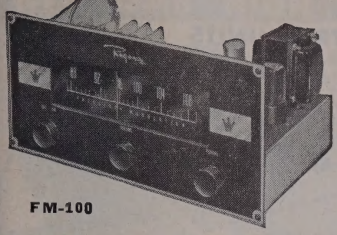
Frequency Response: 20 to 50,000 cps. **Input Imped.:** 3-100,000 ohms. Professional type audio connector. **Output Imped.:** 4-8-16 ohms. **Distortion:** Harmonic, .1% at 10 watts; intermod. 2% at 39 watts. 40 cps and 7000 cps 4:1. **Damp. Fact.:** 6. **Hum and Noise:** 70 db below full output. **Gain:** 60 db. **Output:** 40 watts, 80 peak. **CONTROLS: Record Compensator** incl. 1. Flat 250, 2. Flat 500, 3. FFRR, 4. Orthophonic, 5. LP, 6. NARTB, 7. AES, 8. Old Col., 9. Old RCA, 10. Noisy. **Bass Equalization:** -25 to $+25$ db in 5 db steps at 20 cps; constant crossover selectable for 200, 320, 500, 800 cps. **Treble Equalization:** -25 to $+25$ db in 5 db steps at 20,000 cps; constant crossover for 800, 1270, 2000 and 3000 cps. **Loudness Control. Tubes:** Pre-Amplifier equalizer, 4-12AX7 pre-amplifiers; Power Amplifier, 2-6SN7GA dual phase invert. and 4-5881 P.P. parallel output; Power Supply 2-5R4GY rectifiers. **Size:** Pre-Amp. 15¾″ x 9″ x 7¼″; Power Amp. 11⅛″ x 11⅛″ x 9¼″ high. Power Supply 16⅜″ x 11⅛″ x 9¼″ high. **Power Supply:** Uses 250 watts on 105-120 volts, 50-60 cycle AC. Net Weight 95 lbs., Shipping Weight 117 lbs.

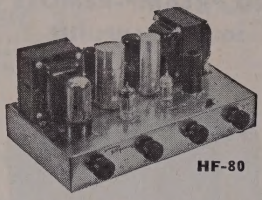
Regenecy Audiophile Model HF-1000 Professional Hi-Fi Ensemble—Net..... **$1000.00**

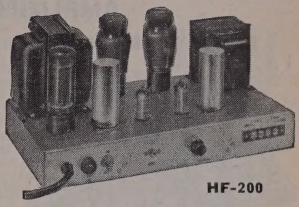
PROFESSIONAL HIGH FIDELITY ENSEMBLE MODEL HF-1000

577-54A

Regency Radio and Hi-Fi Equipment


FM-100


HF-80


HF-200

MODEL FM-100 HIGH FIDELITY FM TUNER

A moderately priced FM Tuner with a full frequency response from 20 to 20,000 cps. Ideal for starting a high fidelity system. **Sensitivity:** 2 μv for 20 db quieting. **Rated Output:** 1.5 v. RMS. **Output Impedance:** 1000 ohms (cathode follower). Phono pin type socket for output connection. **Antenna:** 300 ohms. Screw type binding posts. **Frequency Response:** 20-20,000 cps. Less than 0.1% harmonic distortion. **Hum and Noise:** 70 db below rated output. **Discriminator Width:** 320 kc (peak to peak). **Frequency Stability:** Oscillator under AFC control, disabled while tuning. **Tubes and Functions:** 3-6BJ6, 1 RF and 2 IF amplifiers; 1-6BC5, mixer; 1-6BK7A, oscillator and AFC; 2-6AU6, limiters; 1-6A15, discriminator; 1-12AU7, audio output; 1-6X5, rectifier. **Controls:** Off-FM; Volume; Tuning and AFC. **Chassis:** Cadmium plated steel. **Dimensions:** 14" x 7¼" x 9". Uses 70 watts on 105-120 volts 50-60 cycle AC. U/L Approved. **Weights:** Shipping, 14 lbs., actual, 12 lbs.

Regency Model FM-100 Hi-Fi FM Tuner—Net Each.. **$99.50**

MODEL HF-80 10-WATT HI-FI AMPLIFIER

A complete 10-watt high fidelity audio amplifier embodying a preamplifier, equalizer and power supply. It meets all requirements for a moderate output level high fidelity amplifier. An ideal unit for a compact system.

Output: 10 watts rated, 20 watts instantaneous peak. **Frequency Response:** 20-20,000 cps. **Intermodulation Distortion:** Less than 2% at 10 watts (40 and 7000 cps 4:1). **Hum and Noise:** 63 db below rated output in phono position. **Equalization Ranges:** Bass +19 db to −22 db at 30 cps (with rumble filter out); Treble, +12½ db to −22 db at 20,000 cps. **Voltage Gain:** 65 db in phono position (to 16 ohm load). **Damping Factor:** 6. **Inputs:** Phono pin type for magnetic pickup and 3 high level for TV, FM, tape, etc. **Output Connectors:** Screw type binding posts; impedances, 4, 8 or 16 ohms. **Chassis:** Brass plated steel. **Power Supply:** 105-120 volts, 50-60 cycles AC. **Dimensions:** 11" wide x 6" deep. **Tubes and Functions:** 2-12AX7, magnetic pickup amplifier, phase inverter-driver; 1-6AV6, voltage amplifier and equalizer; 2-6V6, push-pull output; 1-5Y3GT, rectifier. **Controls:** Gain, Bass, Treble, Input Selector and Phono Compensator. **Weights:** Shipping, 12 lbs.; actual, 10½ lbs.

Regency Model HF-80 High Fidelity Audio Amplifier—Net Each..... **$69.95**

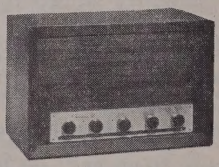
MODEL HF-200 20-WATT HI-FI AMPLIFIER

A high fidelity amplifier with power supply that provides a full 20 watts output with an instantaneous peak of 40 watts.

Output: 20 watts, 40 watts instantaneous peak. **Frequency Response:** 20-40,000 cps. **Intermodulation Distortion:** Less than 2% at 20 watts (40 cps. and 7000 cps 4:1). **Damping Factor:** 6. **Hum and Noise:** 80 db below rated output. **Input Impedance:** 500,000 ohms (high imped.); phono pin jack type connector. **Output Impedances:** 4, 8 or 16 ohms; screw type binding posts. **Power Supply:** 105-120 volts, 50-60 cycles AC, consumes 130 watts. **Tubes and Functions:** 1-12AX7, voltage, phase inverter; 1-5U4G, rectifier. **Controls:** Power switch, Level control. **Size:** 13" wide x 7" deep. **Weights:** Shpg., 18 lbs.; actual, 16 lbs.

Regency Model HF-200 High Fidelity Amplifier—U/L Approved. Net Each..... **$99.50**

HIGH FIDELITY ENCLOSURES



Modern styling and high quality cabinet woods have been combined by River Edge Industries to make these Regency enclosures fine furniture as well as efficient enclosures for Regency high fidelity equipment. Available in table models and consoles in blonde or mahogany. Wrought iron legs are included with consoles and are optional with TMC Series table models. Record Changer Panels fit both TMC-S and CTC-S Series; specify make and model of changer and model No. of Regency Tuner. TMC-Series not illus.

TABLE MODEL CABINET FOR HF-80, HF-150, FM-100

Description	Mahogany Regency No.	Mahogany Net	Blonde Regency No.	Blonde Net
Cabinet	TM-S-M	$17.90	TM-S-B	$19.30
Panels for above.				
HF-80	TM-80-M	5.00	TM-80-B	5.50
HF-150	TM-150-M	5.00	TM-150-B	5.50
Tuner	TM-T-M	5.00	TM-T-B	5.50

TABLE MODEL FOR AMPLIFIER AND CHANGER

Cabinet	TMC-S-M	$45.95	TMC-S-B	$50.55
Panels for above				
HF-80	TMC-80-M	5.00	TMC-80-B	5.50
HF-150	TMC-150-M	5.00	TMC-150-B	5.50

Regency Model WIL—Wrought Iron Legs for TMC Series. Net per set of four..... **$4.95**

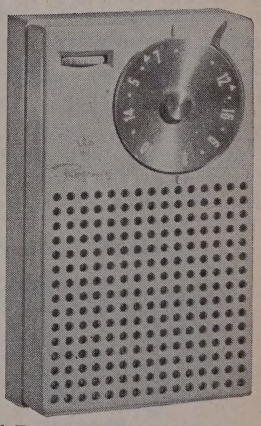
CONSOLE CABINET FOR AMPLIFIER, TUNER AND CHANGER

Cabinet	CTC-S-M	$75.95	CTC-S-B	$85.55
Panels for above.				
HF-80	CTC-80-M	5.00	CTC-80-B	5.50
HF-150	CTC-150-M	5.00	CTC-150-B	5.50
Tuner, HF-80	CTC-T-80-M	5.00	CTC-T-80-B	5.50
Tuner, HF-150	CTC-T-150-M	5.00	CTC-T-150-B	5.50

Panel for Changer—For TMC-S and CTC-S Series.
Regency No. TMC-CTC-RC-M—Mahogany. Net Each.. **$5.00**
Regency No. TMC-CTC-RC-B—Blonde. Net Each..... **5.50**

NEW TRANSISTOR PORTABLE RADIO

- FOUR TRANSISTORS IN PLACE OF TUBES
- CLEAR, TRUE TONE
- WIDE VOLUME RANGE



A tiny pocket radio with big set performance because it makes use of transistors and printed circuits. Four transistors eliminate delicate bulky tubes, almost never wear out and require only a fraction as much power. Utilizes one transistor as a mixer-oscillator, two as IF amplifiers and one a audio amplifier. A germanium diode serves as a detector. Superheterodyne printed circuit employs a moisture resistant bakelite chassis, photo-etched wiring, and dip-soldering. 2¾" Alnico V PM super dynamic speaker is in shock resistant mounting, is acoustically baffled for distortion free balanced tone at full volume. Has cutoff for individual earphone reception. Power is supplied by standard 22½-volt battery, easily changed. Two-piece molded plastic case is only 3" x 5" x 1¼". Styled by Painter, Teague and Petertil, designers, in choice of black, ivory, mandarin red, cloud gray, mahogany and olive green. Tubes standard broadcast band, 540-1600 kc, including Conelrad (Civil Defense) frequencies. Weighs only 12 oz.

Regency Model TR-1 Transistor Radio—State color wanted when ordering. Price less battery..... **$49.95**

Earphone—Single phone, for strictly private listening. Plugs into built-in jack, automatically cutting off speaker. Speaker resumes when plug is removed. Price..... **$7.50**

Carrying Case—Top grain leather case with spring lock closure. Radio and earphone can be operated while in case. Pocket on back accommodates earphone. Has handy belt loop for carrying. Price..... **$3.95**

Battery—22½-volt battery (NEDA 215). Price..... **$1.15**

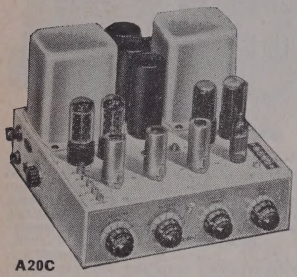
OUR LINE OF HIGH FIDELITY EQUIPMENT IS COMPLETE. WE STOCK COMPONENTS FOR ALL TYPES AND PRICES OF SYSTEMS. SEE US OR WRITE FOR COMPLETE UP-TO-DATE INFORMATION.

577X-55A

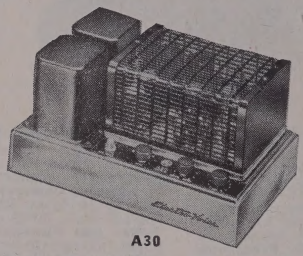
High Fidelity Amplifiers, Controls

ELECTRO-VOICE CIRCLOTRON AMPLIFIERS AND PREAMP-REMOTE CONTROL UNITS

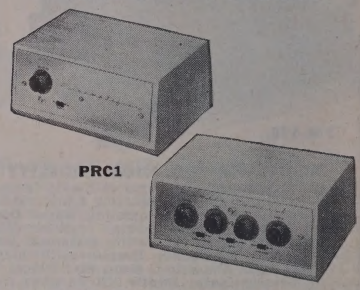
20-WATT AMPLIFIER **30-WATT AMPLIFIER** **PREAMP-REMOTE CONTROL**



A20C



A30



PRC1

NEW E-V WIGGINS CIRCLOTRON AMPLIFIERS

E-V high fidelity amplifiers offer many new features for complete listening satisfaction. No DC in output transformer; unity coupled tubes eliminate switching transients. Low leakage reactance; high tube efficiency with long component life provides trouble-free operation. New critical damping control matches amplifier to any speaker system, eliminating over-damped bass losses, under-damped hangover. Convenient chassis mounting brackets provided.

MODEL A20C 20-WATT CIRCLOTRON AMPLIFIER

High-quality amplifier with all necessary controls. **Power Output:** 20 watts rated, 40 watts peak. **Frequency Response** (at 20 watts): ±1 db 20-20,000 cps; line amplifier section ±0.1 db 20-70,000 cps. **Distortion** (at 20 watts) harmonic less than 0.5%; IM less than 1.5%. **Hum and Noise:** 70 db below rated output, mag. phono −55 db. **Feedback Total:** −33 db. **Inputs:** Ultra-linear phono, mag. phono, tuner or TV, tape, Hi-Z mike. **Outputs:** 4, 8, 16 ohms unbalanced, 600-ohm balanced. **Controls:** Function selector, record compensation (7 positions), level, loudness, bass-on-off, treble, damping factor (0.1 to 15), 2 hum adjustments. **Tubes:** 3-12AX7, 1-12BH7, 2-6V6GT, 2-5Y3GT. For 117 V., 60 cycle AC at 1.15 amps max. Gray finish, gold and green panel. **Size:** 10¾" W., 11¼" D., 7⅜" H. Shpg. Wt. 23 lbs.
Electro-Voice Model A20C Amplifier—Net Each.... **$110.00**

MODEL A30 30-WATT CIRCLOTRON LINE AMPLIFIER

Sets new standard in high fidelity reproduction. **Power Output:** 30 watts rated, 60 watts peak. **Frequency Response:** ±0.25 db 20-70,000 cps at 30 watts. **Distortion** (at 30 watts) harmonic less than 0.5%; IM less than 1%. **Hum and Noise:** 90 db below rated output. **Total Feedback:** −31 db. **Input Impedance:** 250,000 ohms. **Outputs:** 4, 8, 16 ohms unbalanced, 600-ohm balanced. **Sensitivity:** 1.25 V for rated output. **Controls:** Gain, damping factor (0.1 to 15), hum adjustment, on-off. **Tubes:** 1-12AX7, 1-12BH7, 2-6BG6G, 2-5Y3GT. Built-in power for PRC1. 117 V, 60 cycle AC at 1.3 amps max. Chrome chassis, black trim. **Size:** 13¾" W., 8½" D., 7" H. Shpg. Wt., 25 lbs.
Electro-Voice Model A30 Amplifier—Net Each..... **$145.00**

MODEL PRC1 PREAMPLIFIER AND REMOTE CONTROL SET

Matching units for use with Model A30. Preamplifier unit is used near amplifier and associated equipment; remote control unit is separate to allow convenient operation of system up to 75' from other equipment with single cable connection.

When PRC1 is used with Model A30: **Frequency Response:** ±0.5 db 20-20,000 cps. **Distortion** (at 30 watts) harmonic less than 0.5%; IM less than 1.5%. **Hum and Noise:** 80 db below rated output, Model M1 magnetic phono −60 db. **Inputs** (preamplifier unit)—Ultra-linear phono, mag. phono (choice of high or low-level jacks in M1 assembly), tuner, tape, TV, auxiliary. **Controls:** (preamplifier)—On-off, function selector, 4 input-level controls, (one input-level control on M1 assembly); (remote control)—Record compensation (9 positions), level, volume-loudness switch, rumble filter, presence, bass, treble. **Tubes:** (preamplifier)—1-6C4; (M1 assembly)—1-12AY7; (remote control)—1-12AY7, 1-12AX7. **Power Required:** (drawn from Model A30) 6.3 V AC at 1.05 amps, 18 V DC at 0.15 amp, 250 V DC at 10 ma. Gold and green panels in mahogany or blond Korina cabinets. **Size:** (each unit) 10⅜" W., 7½" D., 4¾" H. Shipping Weight (total both units), 12 lbs.

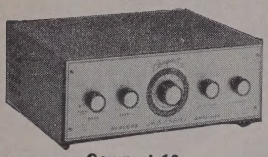
Electro-Voice Model PRC1—Preamplifier Unit and Remote Control Unit. Net Each Set..... **$120.00**

Model PRC2—Similar to PRC1 but without M1 magnetic preamplifier assembly. Plug-in assembly to replace M1 load included. Net Each Set..... **$105.00**

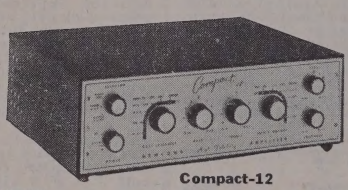
Model M1 Magnetic Preamp Unit—Plugs into Model PRC2. Shpg. Wt. 2 lbs. Net Each..... **$15.00**

Note: Models PRC1 and PRC2 are supplied with 5' cables. Extensions are available for remote control unit. Models PRC1 and PRC2 without cabinets, deduct **$5.00** from Net for each cabinet.

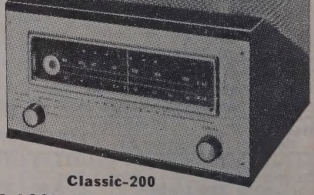
NEWCOMB HIGH FIDELITY EQUIPMENT



Compact-10



Compact-12



Classic-200

"COMPACT-10" 10-WATT AMPLIFIER

Control Unit, Preamplifier and 10-Watt Amplifier in one unit. **Response:** 20-20,000 cps, ±1 db; rumble filter. **Controls:** 6-pos. curve selector, For. 78, Dom. 78, London, Col. RCA/NAB, AES. Separate bass (with Off-On Power Switch), and Treble controls. Loudness control. Input selector for Phono-Mike and Radio-Tape. AC outlet. Panel finished in anodized aluminum that looks like brushed brass. **Tubes:** 2-12AX7, 2-6V6GT, 6AX5. **Size:** 3⅞" x 7¾" x 9⅜". Weight 9 lbs.
Newcomb "Compact-10" Amplifier—Net Each..... **$79.50**

"COMPACT-12" 12-WATT AMPLIFIER

Control Unit, Preamplifier and 12-Watt Power Amplifier in one unit. Response: ±1 db 20-20,000 cps; distort. less than 1% at 12 watts. **Controls:** Sep. 6-position bass crossover and treble roll-off select up to 36 recording curves; bass positions for Mike, For. 78-rpm, AES, RCA-NAB, Dom. 78-rpm-Lon-Col, and Bartok; Treble for NAB-Col, RCA-Ortho, AES, Lon, 78, Flat. **Tone Control Range:** Bass, −15 to +18 db, treble −18 to +16 db. Also Separate On-Off-Rumble, Loudness and Level controls. **Inputs:** Radio, Mike, Low and High Outputs, Mag. and Crys. Pickups, Tape and TV or Aux. **Hum Level:** 80 db below 12 watts. 2 AC outlets. Brass colored anodized panel. Pilot light. **Tubes:** 2-12AX7, 1-6AV6, 2-6V6GT, 1-5Y3. **Size:** 12½" x 9" x 4⅛". Weight 12½ lbs.
Newcomb "Compact-12" Amplifier—Net Each..... **$99.50**

"CLASSIC-200" FM-AM TUNER

Compact, ultra-sensitive hi-fi FM-AM Tuner for use with amplifiers having their own controls. Front panel knobs for tuning and function selection: On-Off, FM, FM without AFC, AM Sharp, AM Broad, Aux. 4 chassis controls: Vol., AFC sensitivity, AM sens., Hum bal. **FM Section:** Adj. AFC; AVC; dual triode cascode front end; TV-type mixer; dual limiter circuit; Foster-Seeley discrim.; Armstrong circuit; drift-compensated oscillator; 30 db quieting, less than 1½ μv at 72 ohms or less than 3 μv at 300 ohm antenna input. **Response:** 20-20,000 cps ±0.5 db, distortion less than 0.25%. **AM Section:** Adjustable bandwidth, −3 db at 8500 cps.; low noise circuit; low distortion detector unaffected by modul. percentage; 10 kc whistle filter. Needs 1 μv input for 1 v. output. Completely shielded. Separate front ends for AM and FM. Indoor folded dipole antenna plus 72-ohm and 300-ohm inputs. Flywheel tuning, edge-lighted dial with tuning eye. Brown and gold color cabinet, brass colored anodized finish removable panel, chrome plated chassis. Easily installs behind panels up to ¾". **Tubes:** 1-6BK7A, 1-6U8, 3-6BA6, 2-6AU6, 1-6AL5, 1-6AB4 1-6BE6, 2-12AX7, 1-6E5, 1-6X4. **Size:** 6⅜" x 11½" x 11½". Weight 16 lbs.
Newcomb "Classic-200" FM-AM Tuner—Net Each **$169.50**

ALL NEWCOMB EQUIPMENT IS UNDERWRITERS' LABORATORY APPROVED FOR YOUR SAFETY.

243-55A

Newcomb Audio Equipment

NEWCOMB HIGH FIDELITY HOME MUSIC AMPLIFIERS

THE CLASSIC 25

25 WATTS WITH COMPLETE REMOTE CONTROL

A priceless combination of overall technical perfection, applicational flexibility and sheer listening pleasure. Average level distortion is reduced to the vanishing point, with "Audi-balance" (patent applied for) devised by Newcomb engineers to allow you to keep it that way. "Audi-balance" permits anyone to obtain perfect balance of output tubes for lowest distortion in a matter of seconds.

In the Classic 25 the uncompromising perfectionist will find ultra-fidelity with ample reserve power; hum eliminated by DC filament supply; a high damping factor designed to reduce transient distortion to the minimum without disregarding practical needs of today's loudspeakers; new A.E.S. response position more perfectly to match the characteristics of many of today's finest recordings; a new output connection to tape recorder; maximum adaptability to widely varying personal tastes, acoustical conditions and the peculiarities of associated equipment; panel mounting simplified by the exclusive new "Adjusta-panel" feature (patent applied for) that instantly extends the control shafts as needed up to ¾". Remote controls finished in brushed brass.

POWER AMPLIFIER—FREQUENCY RESPONSE: flat from 10 to 30,000 cycles with negligible deviation from 5 to 100,000 cycles. DISTORTION: as low as .005% at average listening levels; less than .15% at 15 watts. HUM and NOISE: 95 db below 25 watts. INPUTS: (6) all at main amplifier, 1 low level magnetic pickup (.0092 volt); 1 high level magnetic pickup (.046 volt); 1 crystal (.61 volt); 1 radio (1 volt); 1 TV (1 volt); 1 tape (1 volt). PRE-AMP: shock mounted with full frequency compensation for various inputs. CONTROLS: 1 master phono gain or "limit" control, 1 crystal-magnetic selector switch, 1 "Audi-balance" switch, 1 "Audi-balance" control, 1 AC power switch on 5-ft. cable. OUTPUTS: to speakers, 8 or 16 ohms at terminal strip. To tape recorder, up to 6½ volts to high impedance "external amplifier" input of tape recorder. Auxiliary AC socket. **Fuse** for protection. TUBES: (6) 2-12 AX7; 1-12AU7; 2-6L6G; 1-5U4G. POWER CONSUMPTION: 125 watts, 117 volts, 60 cps. AC. Dove brown hammertone baked enamel. SIZE: 14" x 10" x 7¼".

REMOTE CONTROL: Cable length, 5-ft., may be extended up to 100-ft. (Model 2X, 20-ft. extension cable available to moderate cost.) PANEL CONTROLS: 1 bass range −16 db to +23 db (special curve shape avoids over emphasis of mid-bass frequencies); 1 treble, range −25 to +23 db; 1 5-position record condition compensator; 1 5-position crossover control selects ideal playback characteristics and automatically equalizes for lower average level of microgroove records; 1 program selector; 1 volume control Fletcher-Munson compensated for both highs and lows for utmost low level realism, 1 petite pilot lamp. TUBES: (2) 1-12AX7; 1-12AV6. Brushed brass finish. SIZE: 8⅝" x 4⅜" x 3⅞". Weight, both units 28½ lbs. U/L approved.

Newcomb Classic 25 High Fidelity Amplifier— List Price, **$449.15.** Net Each..... **$269.50**

THE CLASSIC 15

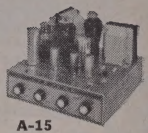
An ultra-high fidelity amplifier of low distortion and excellent reserve power. A fit companion to the Classic 25. Remote fits into any interior and may be placed up to 50-ft. from power amplifier. Includes "Audi-balance" control and "Adjusta-panel" described above.

POWER AMPLIFIER: FREQUENCY RESPONSE: ±1 db, 10-25,000 cps with excellent response to 100,000 cps. DISTORTION: less than .1% at 12 watts; less than .2% at 15 watts. HUM and NOISE: 85 db below 15 watts. INPUTS: (6) 1 low level (.008 volts) magnetic pickup; 1 high level (.032 volts) magnetic pickup; 1 crystal pickup (.546 volts); 1 radio (1 volt); 1 TV (1 volt); 1 tape (1 volt). Pre-amp shock mounted. CONTROLS: 1 master phono gain or "limit" control; 1 crystal-magnetic selector switch; 1 "audi-balance" control; 1 hum balance control; 1 AC power on 5-ft. cord. OUTPUTS: to speakers, 8 or 16 ohms at terminal strip; to tape recorder, up to 1.9 volts to hi-Z impedance "external amp." input of recorder. Auxiliary AC socket. TUBES: 1-12AX7, 1-6AV6, 2-6L6G, 1-5V4G. POWER CONSUMPTION: 90 watts, 117 volts, 60 cycles AC. SIZE: 14" x 10" x 7¼".

REMOTE CONTROL: 5-ft. cable (20-ft. extension available). CONTROLS: 1 bass (−17 to +20 db); 1 treble (−20 to +18 db); 1 5-position crossover control; 1 program selector; 1 vol. control, Fletcher-Munson compensated; 1 petite pilot lamp. Finish: Brushed brass. TUBES: 1-6AV6; 1-12AX7. SIZE: Remote, 4⅝" x 4⅜" x 3⅞". Weight, both units, 20¾ lbs. U/L approved.

Newcomb Classic 15 High Fidelity Amplifier— List Price, **$299.17.** Net Each..... **$179.50**

A-15 15 WATT HIGH FIDELITY AMPLIFIER

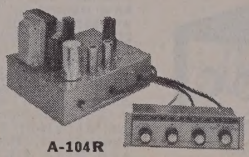


A-15

• Distortion less than .25% at 15 watts. • 10 to 100,000 cycle response. ±1 db from 20 to 20,000 cycles. • Built-in pre-amp fully compensates for magnetic pickups. • Distortion free individual bass and treble controls. • Crossover selector with A.E.S. response position. • Fletcher-Munson bass and treble compensation. • "Adjusta-panel" (pat. applied for) shaft extension for easy installation. • High damping factor. • Hum balance control.

INPUTS: (amplifier contains four) 1 low level magnetic pickup (.0085 volts); 1 high level magnetic pickup (.037 volts); 1 crystal (.037 volts); 1 for radio, TV or tape. (.975 volts). HUM and NOISE: 82db below 15 watts. CONTROLS: 1 bass, range 0 to +19db; 1 treble, range −20 to +19 db; 1 program and crossover selector; 1 volume control. TUBES: 1-6AV6; 2-12AX7; 2-6L6G; 1-5U4G. OUTPUT IMPEDANCES: 8 and 16 ohms to terminal strip. Auxiliary AC socket for accessories. Power Consumption, 90 watts at 117 volts, 60 cps. Fused for protection. SIZE: 10" x 10" x 7⅜". Weight. 15 lbs. U/L approved.

Newcomb Model A-15 High Fidelity Amplifier— List Price, **$165.83.** Net Each..... **$99.50**
Separate escutcheon. Part No. PT-67. Net Each..... **$1.80**



A-104R

A-104R 12 WATT HIGH FIDELITY AMPLIFIER

With remote control for easier installation.

• 10 watts at less than 1%. • ±1db, 20 to 20,000 cycles, with good response to 100,000 cycles. • Built-in pre-amp for magnetic pickups. • Separate bass and treble tone controls. • "Adjusta-panel" feature (pat. applied for). • Phono crossover selector with A.E.S position. • Fletcher-Munson bass and treble compensation. • Hum balance control. • Multi-stage inverse feedback.

Offers listening pleasure, technical refinements, parts quality, workmanship and special features not heretofore offered in this price class. OUTPUT: 12 watts at less than 2%. 8 and 16 ohm impedances to terminal strip. INPUTS: Direct to main chassis, 1 low level magnetic pickup (.0115 volts); 1 high level magnetic pickup (.0515 volts); 1 crystal pickup (.58 volts); 1 radio, TV or tape (.98 volts). HUM and NOISE: 70db below 12 watts. CONTROLS: (on remote) 1 bass and power switch, range 0db to +19db; 1 treble, −24 to +13db; 1 crossover and program selector; 1 volume control. TUBES: 2-6AV6; 1-12AX7; 2-6V6G; 1-5Y3FT. Fused for protection. 70 watts, 117 volts, 60 cps. Dove brown hammertone baked enamel finish. Remote finished in brushed brass. SIZE: (main amp.), 7½" x 9" x 6⅜" high; (remote). 8" x 2" x 2". Remote cable, 4'. Weight, both units, 11 lbs. U/L approved.

Newcomb Model A-104R High Fidelity Amplifier— List Price, **$129.20.** Net Each..... **$79.50**

A-104 12 WATT HIGH FIDELITY AMPLIFIER

Identical to A-104R except without remote unit. Controls are on main amplifier. Size: 9" x 9" x 6⅜". Separate escutcheon part PT-66, Net Each, **$1.65.**

Newcomb Model A-104—List Price, **$112.94.** Net Ea. **$69.50**

AM-10R 10 WATT HIGH FIDELITY AMPLIFIER

AM-10R

10 watts at less than 3%. ±1db, 20 to 20,000 cps, good response to 75,000 cps. Built-in pre-amp compensated for magnetic pickups. New "Interlocked" individual bass and treble controls. A.E.S. tone position. Hum balance control. Multi-stage inverse feedback. "Adjusta-panel". INPUTS: (to main chassis) 1-low level magnetic (.0069v.); 1-high level magnetic (.039v.); 1 crystal (.485v.); 1 radio, TV or tape input. HUM and NOISE: 80 db below 10 watts. CONTROLS: (on remote) 1 bass, with power switch, 0 to +17db; 1 treble, −16 to +16db; 1 volume. TUBES: 1-6SC7; 1-12AX7; 2-6V6G; 1-6X5GT. Output Impedances 8 and 16 ohms to terminal strip. Aux. AC socket. 60 watts, 117 volts, 60 cps. Fused. Dove brown hammertone, remote panel brushed brass, cable, 4'. Size: (main amp.) 8" x 6⅜" x 5⅜", (remote) 2⅛" x 2" x 5¾". Weight, both units, 8½ lbs. U/L approved.

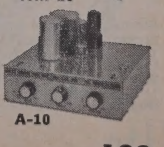
Newcomb Model AM-10R—List Price, **$96.70.** Net. **$59.50**

AM-10 10 WATT HIGH FIDELITY AMPLIFIER—Identical to AM-10R without remote. Controls on main amplifier. "Adjusta-panel" feature for easy installation. Size: 8" x 7¾" x 5⅜". Weight, 7¾ lbs. U/L approved. Separate escutcheon No. PT-65, Net Each **$1.50.**

AM-10

Newcomb Model AM-10— List Price, **$80.84.** Net Each... **$49.75**

A-10 10 WATT HIGH FIDELITY AMPLIFIER—Similar to AM-10 but with lower gain for crystal pickups. Includes identical controls and features. Inputs: (2) crystal, .55 volts; radio, TV or tape. Tubes: 1-12AX7; 2-6V6GT; 1-6X5GT. Wt., 7½ lbs. U/L approved. Separate escutcheon, Net Each **$1.50.**

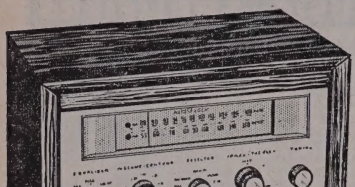


A-10

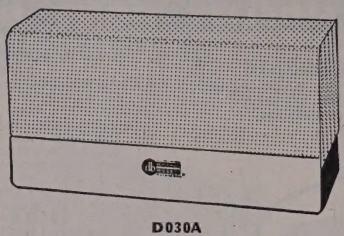
Newcomb Model A-10— List Price, **$72.73.** Net Each... **$44.75**

176X-54A

Bogen High-Fidelity Equipment



R765WM

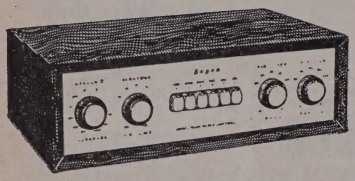


D030A

R765 AM-FM TUNER

Unsurpassed high fidelity AM and FM radio reception is possible with this new tuner. Features new Auso-Lock automatis FM tuning device that takes over to provide final precise tuning after the station has been located on the dial. AFC automatically cuts out while tuning. For simplified tuning, tone control, equalizer and loudness contour selector have colored dot to indicate position for average listening requirements. Built-in preamplifier assures adequate compensation for the popular magnetic phono cartridges. Tape recorder may be connected for recording programs. **Frequency Response:** Audio Section, 10-200,000 cps ±1 db. FM, 20-20,000 cps ± ½ db. AM-Normal, 6 db down at 4000 cps; AM-Hi-Fi, 6 db down at 8000 cps; **Controls:** 1. Equalizer (EU78, US78. AES, RIAA (ORTHO), COL-LP, NAB, FOP (for noisy records). 2. Volume. 3. Loudness Contour Selector (concentric with Volume). 4. Function Switch (Aux, AM-Norm, AM-Hi-Fi, Phono, FM). 5. Bass. 6. Treble (concentric with Bass). 7. Flywheel tuning (edgelit dial). **Distortion:** Audio Sec., less than 0.1% at 2 v. FM, 0.4% at 100% mod. **Tubes:** 1-6BK7, 2-6AB4, 3-12AT, 2-6BA6, 1-6BE6, 3-6AU6, 1-6U8, 1-6BN6, 2-6AL5, 1-6X4. **Power Consumption:** 60 watts. **Size:** Chassis, 14¾" x 10¼" (plus knobs) x 6¾" H. **Shipping Weight:** 17½ lbs. Cabinets, 15⅞" x 10¾" (plus knobs) x 7⅜" H. **Shipping Weight:** 23 lbs.

Bogen No. R765—Chassis. NET $199.50
Bogen No. R765WM—Mahogany.
Bogen No. R765WB—Blonde. NET $221.75



PR100WM

D030A POWER AMPLIFIER

Superb companion for R765 tuner, designed to serve as the "heart" of high-fidelity systems of the very highest quality. Exclusive variable damping factor control circuit permits precise matching of amplifier to speaker system which provides cleaner bass response. Furnished with attractive gold cage. KT66 tubes in partial cathode loaded output circuit. **Power Output:** 30 watts at 0.7% distortion, 10 watts at 0.15%. **Frequency Response:** 10-25,000 cps ± .2 db. **Hum:** −85 to −95 db. **Damping Factor:** +2 to −1. **Output Impedance:** 8 and 16 ohms. **Dimensions:** 15" L x 5¾" D x 7¾" H. **Shipping Weight:** 28 pounds. Use with R765, R300-1 tuners.

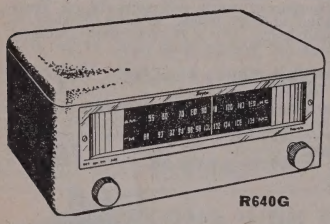
Bogen No. D030A—NET $99.00

PR100 AUDIO CONTROL-PREAMP.

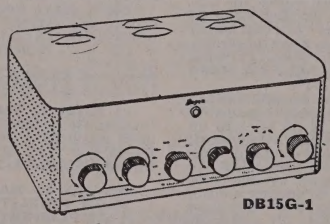
A complete Audio Control Unit and Preamplifier designed to be the heart of a high fidelity system. Two equalization controls with six positions each for high roll-off and low turnover; two filter controls with five positions each for bass and treble; continuously variable bass and treble tone controls; volume control and loudness contour control with five positions; six push-button input selectors. **Frequency Response:** 5-150,000 cps, ± ½ db. **Distortion:** Practically unmeasurable. Cascaded cascode feedback equalizer stage for lowest noise. DC used on all filaments to prevent hum. Simplified operation is possible. Colored dots indicate control positions for average listening conditions. Use with D030A, D0110, R640, FM400A, AM901-1.

Bogen No. PR100—Chassis only. 4¼" x 14½" x 9". Shpg. Wt. 13¼ lbs. NET $99.50

Bogen No. PR100WM—In Mahogany Veneer cabinet.
Bogen No. PR100WB—In Blonde cabinet. 5½" x 15¾" x 10¼". Weight 18 lbs. NET $119.50



R640G



DB15G-1

R640G AM-FM TUNER

A new superhet tuner with outstanding sensitivity, selectivity and response characteristics. Available with cage for shelf or table mounting, or in chassis form. AFC and defeat switch. Supplied with low impedance loop. **Sensitivity:** (FM) 5 m.v. for 20 db quieting. **Frequency Response:** (FM) 50-15,000 c.p.s. ± 1 db. **Controls:** (2) Tuning and Selector. **Tubes:** Eleven. **Dimensions:** R640: 13¼" W x 7¾" D x 5½" H. R640G: 13¼" W x9" D x 6¼" H. **Shipping Weight:** R640: 15 pounds. R640G: 18 pounds. Use with DB15, DB20, DB110 amplifiers.

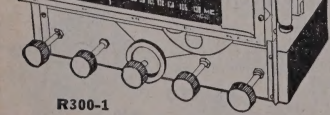
Bogen No. R640G—In metalustre enclosure. NET $112.95
Bogen No. R640—Chassis only. NET $105.50
Bogen No. 640G-2—In cage. NET 112.45
Bogen No. 640WB—In Blonde veneer cabinet. NET 124.00
Bogen No. R640WM—In Mahogany cabinet. NET 124.00

DB15G-1 AMPLIFIER

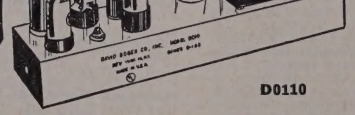
Companion to R640G tuner, available with or without matching cage. Built-in preamp. Incorporates two section equalizer, allowing 20 combinations of low frequency compensation and high frequency roll off, plus bass and treble tone controls. Loudness contour selector, a Bogen development, provides solution to loudness compensation problems. **Power Output:** 15 watts at 0.5%, 10 watts at 0.2%. **Frequency Response:** 20-20,000 c.p.s. ± 0.5 db. **Hum:** −70 db. **Tone Control Ranges:** Bass +17 to −18 db at 40 c.p.s. **Treble:** +15 to −21 db at 15 kc. **Output Impedance:** 8 to 16 ohms. **Damping Factor:** 20. **Record Equalization Positions:** 10. **Loudness Contour Sel. Positions:** 5. **Input Sel. Pos.:** 5. **Dimensions:** DB15: 12¼" W x 8¾" D x 3¾" H. DB15G-1: 13½" W x 8¾" D x 6¼" H. **Shipping Weights:** DB15 22 lbs., DB15G-1 25 lbs.

Bogen No. DB15G-1— With Cage. NET $100.70
Bogen No. DB16—Less Cage. NET $89.95

Mounted in Cabinets
Bogen No. DB15WB—Blonde.
Bogen No. DB15WM—Mahogany. NET $110.70



R300-1



D0110

R300-1 AM-FM TUNER

Similar to Model R765 described above in most performance functions. Employs built-in preamplifier and AFC circuit. Will perform splendidly in great majority of installations, where conditions for radio reception are not markedly adverse. **Sensitivity:** 7 m.v. required for 30 db quieting. **FM Frequency Response:** 30-18,000 c.p.s. ± 2 db. **Dimensions:** 13¼" W x 7¼" D x 7⅜" H. **Shipping Weight:** 13 pounds. Use with D030A, D0110 amplifiers.

Bogen No. R300-1—NET $95.70

D0110 POWER AMPLIFIER

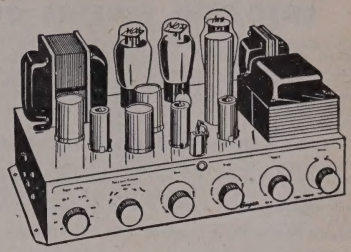
Narrow chassis permits greater flexibility in installation. Designed to be driven by the output of a quality AM or FM Tuner or a magnetic pickup preamplifier. **Power Output:** 12 watts at 0.15%; peak 19 watts. **Frequency Response:** 8-60,000 cps, ±0.5 db. **Gain:** 69 db. **Noise:** 80 db below rated output. **Damping Factor:** Infinity. **Output Impedance:** 4, 8 and 16 ohms. **Inputs:** GE phono, Pickering phono, Tuner (500,000 ohms). **Tubes:** 1-6SN7GT, 1-6SL7GT, 2-6V6GT, 1-5Y3GT. **Size:** 16" L x 4" D x 5" H. **Power Consumption:** 70 watts at 117 volts, 60 cycles AC. **Shipping Weight:** 13 lbs. Use with R765, R300-1 tuners.

Bogen No. D0110— NET $44.95

98-55A

Bogen High-Fidelity Equipment

DB20 AND DB20DF AMPLIFIERS



Top-rated DB20 offers a combination of important features that add up to outstanding music reproduction and remarkable versatility of control. This amplifier has a loudness "contour" selector to provide choice of optimum compensation at any desired listening level; 7-position record equalizer for accurate play-back of all types of records; Bass and Treble controls. D. C. operated preamplifier filaments minimize hum; 5 feedback loops including partial cathode-loaded output assure extremely low distortion. Rumble filter is incorporated.

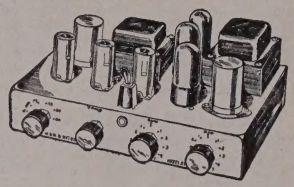
ANOTHER NEW MODEL—DB20DF—provides the ultimate in bass response by permitting precise coupling of the amplifier to the loudspeaker system. A simple adjustment, made upon installation, permits variation of the damping factor from +2 through infinity to −1; "tunes out" resonant peaks and reduces worst non-linear characteristics of the speaker system.

Power Output: 20 watts at 0.3%; peak 30 watts. **Frequency Response:** 20-20,000 cps, ±0.7 db. **Hum and Noise:** 75 db below 20 watts. **Five Inputs:** Magnetic phono, crystal phono, radio tuner, TV and tape recorder. **Tone Control Ranges:** Bass +17 to −18 db at 40 cps; Treble +15 to −21 db at 15,000 cps. **Tubes:** 7. **Controls:** Volume; Bass; Treble; Contour Selector; Selector Switch (Radio, TV, Tape, LP, AES, NAB, American 78, Eur. 78, FFRR. POP); Power On-Off.

Dimensions: (Either model), 15¼" wide, 10" deep, 8" high. Shipping Weight 30 lbs.

Use with R640, FM400, AM901 Tuners. $99.00
Bogen No. DB20—NET
Bogen No. DB20G—In cage. NET.... $108.00
Bogen No. DB20DF—NET.... $108.00
Bogen No. DB20DFG—In cage. NET.. $115.50

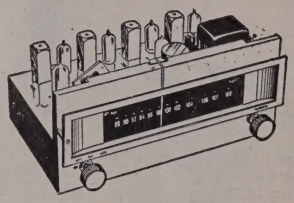
DB110 AMPLIFIER



A low-priced amplifier with specifications and performance equal to amplifiers of much higher prices. Provides 12 watts output with a peak of 19 watts. Extremely low harmonic and intermodulation distortion (0.65% harmonic distortion at 12 watts across the full frequency range; less than 0.1% at lower listening levels). Wide band frequency response flat within ±½ db 10-60,000 cps. Infinity damping factor. Four controls: Volume, Bass, Treble and one providing four input selection positions and three record equalization positions. Built-in preamplifier with compensated inputs for all popular magnetic phono cartridges, plus inputs for microphone, tuner and other sound sources as television, crystal phono cartridge or tape recorder playback. Tuners R640, FM400A and AM901-1 are ideal companions for the DB110 Amplifier, as they avoid duplication of its controls. Also has provision for tape recording by means of a high impedance low level output jack, which may be connected to the input of the recorder. Size, chassis only, 11" x 7¼" x 5¼"; with cage, 11⅛" x 7¾" x 5⅜".

Bogen No. DB110—Chassis only, without cage. NET.... $59.95
Bogen No. DB110G—Chassis installed in cage. NET.... $64.50

FM400A FM TUNER



NEWEST BOGEN FM TUNER. Featuring high (6 mv.) sensitivity and selectivity. Superb fidelity of reproduction. Employs three-gang tuning, a limiter and Foster-Seeley discriminator. AFC circuit. Indoor antenna supplied. Operation is simplicity itself; designed for use with amplifiers with volume and tone controls, the FM400A has only two controls (Tuning and Power Off-FM-AFC Off). Installation in a cabinet is particularly easy with the FM400A for its very low height (5¾") and removable escutcheon permit mounting the tuner in a very wide variety of cabinets and other enclosures. **Specifications:** Similar to FM portion of R640 tuner. Shipping Weight 14 lbs.

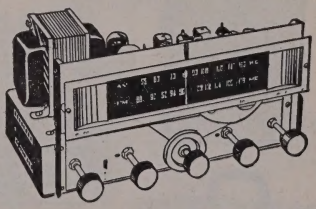
Bogen No. FM400A—Chassis only. NET.... $69.95
Bogen No. FM400G—In cage. NET.... $77.40
Bogen No. FM400G-2—In metalustre case. NET.... 78.70
In veneer cabinets—Bogen No. FW400WB—Blonde.... 88.50
Bogen No. FW400M—Mahogany. NET.... 88.50

AM 901-1 AM TUNER

Superior AM tuner for quality hi-fi systems. Similar in appearance to FM400A Two selectivity positions. Crystal phono and TV inputs. Selector switch. Performance similar to AM portion of R640 tuner. 10" wide, 8" deep, 7½" high. Shipping Weight 12 lbs.

Bogen No. AM901-1—NET.... $69.30

RR501 FM-AM RECEIVER



High-fidelity radio reception at moderate cost. AM-FM tuner, phono preamplifier and 10-watt power amplifier on a single chassis. This model need only be connected to a loudspeaker and it is ready to play. FM portion utilizes ratio detector. Separate Bass and Treble controls. Three-position record equalizer. Low impedance loop supplied. **Frequency Response:** 30-18,000 cps. ±2 db. **FM Sensitivity:** 7 mv. required for 30 db quieting. **Power Output:** 10 watts at 3%. **Controls:** Volume; Tuning; Bass; Treble; Function Selector. **Output Impedance:** 3.2, 8 and 16 ohms. **Dimensions:** 13¾" wide, 7¼" deep, 7⅜" high.

Bogen No. RR501—Shipping Weight 17 lbs. NET.... $109.75

B50-4 AND B50-4X RECORD PLAYERS

Will play all discs up to 16" in diameter at any desired speed from 29 to 86 rpm. Speed regulated by means of a single control. Start and shut off are automatic. Heavy-duty, four-pole, constant-velocity motor and a weighted, balanced turntable of 11¾" diameter reduce "wow" to less than 1% and keep "hum" and "rumble" at similarly negligible levels. Stylus pressure adjustable. Provided with plug-in head. Shipping Weight 15 lbs.

Bogen No. B50-4—Supplied with a wide-range piezo electric cartridge and dual sapphire-tipped stylus. NET.... $42.00
Bogen No. B50-4X—Supplied with a G. E. RPX-050 variable reluctance cartridge and dual reversible stylus. NET.... $48.65
Bogen No. B50-4LC—Above with plug-in head but less cartridge. NET $40.40
Bogen No. PB2—Attractive wooden base for convenient mounting of the player as illustrated. 16" W x 13" D x 2" H. NET.... $4.80

Bogen Sound Equipment

ENJOY THE BENEFITS OF A BOGEN DELUXE HOME COMMUNO-PHONE

The Bogen Deluxe Home Communo-Phone is a new system of voice intercommunication especially designed to simplify the running of your home. Now, at last, wherever you may be, you can enjoy the full spaciousness of your home without tedious walking upstairs and down—back and forth. Your home, spread out for gracious living, is now tied together by your voice, for efficient living.

MODEL FC-1 CONTROL STATION

This station mounts flush with the wall; it is designed for use in bedrooms, nursery, living room, dining room, kitchen, etc. Supplied with selector switch for selective calling to 9 stations. **Dimensions:** Box, 5¼″ x 6¾″ x 3″ deep; Front Panel, 7½″ x 6″ x ½″ deep.
Bogen Model FC-1 Control Unit—Net Each..... **$17.70**

MODEL FR-1 REMOTE STATION

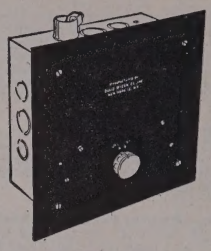
This remote station is designed for location at the front and rear doors, garage, etc., where privacy and selective origination of calls are not required. It can be mounted flush in the wall or door moulding or surface mounted on any wall. **Dimensions:** 4⅜″ x 5″ x 1½″ deep.
Bogen Model FR-1 Remote Station—Net Each..... **$8.70**

MODEL PS-1 POWER SUPPLY

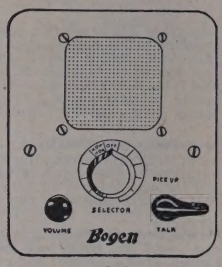
This power supply is the central source of power for the Home Communo-Phone system. Once turned **on,** it need never be touched unless the house is to be closed for an extended period. When the system is not in actual use, the power supply draws practically no current. Standby condition minimizes the cost of operation and extends the life of the tubes. **Dimensions:** Box, 8″ x 8″ x 4″; Front Panel, 10″ x 10″.
Bogen Model PS-1 Power Supply—Net Each..... **$34.65**

MODEL LP-1 LUCITE CONTROL PANEL

Developed with the home decorator in mind. All control markings etched in gold, permitting the plate to be mounted to the Control Station after the Control Station has been painted to suit the decor of the room.
Bogen Model LP-1 Lucite Panel—Net Each..... **$1.95**



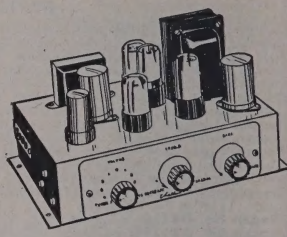
PS-1



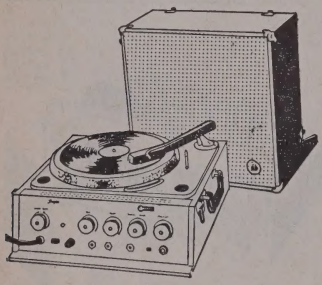
FC-1

BOGEN "CHALLENGER" AMPLIFIER

HF8 AMPLIFIER
With built-in preamp and separate Bass and Treble controls. **Freq. Response:** 30-20,000 cps ±1 db. **Power Output:** 8 w. at 1%. **Hum:** —60 db. **Output Imp.:** 4, 8, 16 ohms. **Tubes:** 5. **Dimensions:** 11″ W, 8¼″ D, 6″ H. **Shpg. Wt.:** 10 lbs.
Bogen Model HF8 Amplifier— Net Each..... **$35.95**



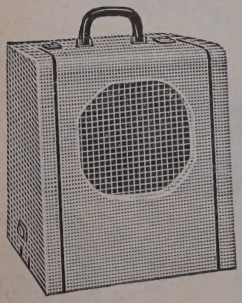
BOGEN TRANSCRIPTION AND RECORD PLAYERS



VP17X HIGH FIDELITY TRANSCRIPTION PLAYERS

Complete portable hi-fi phonograph, featuring variable speed control from 29 to 86 r.p.m. Especially suitable for dance or language instruction. Incorporates heavy-duty, four-pole motor, 10-watt hi-fi amplifier and 12″ speaker, carefully matched and housed in attractive compact carrying case. Will play records up to 16″ in diameter. Motor velocity remains constant regardless of changes in turntable speed or line voltage. Reduces "wow", hum and "rumble" to negligible values. Automatic start and shut off. Separate Bass and Treble controls. Microphone input and control. **Frequency Response:** 40-12,000 cps ±1½ db. Case constructed of ⅜″ plywood, shock mounted, and measures 17″ x 14½″ x 12⅝″. Complete with 25′ of speaker cable. Weight, 36 lbs.

Bogen Model VP17—With wide-range crystal cartridge, dual sapphire styli. Net Each..... **$137.60**
Bogen Model VP17X—With GE cartridge, dual sapphire-tipped styli and compensated preamplifier built-in. Carrying weight 37 lbs. Net Each..... **$150.40**
Bogen Model FP17—Same as VP17 except with 3-speed motor. Net Each.. **$115.20**
Bogen Model FP17X—Same as VP17X except with 3-speed motor. Net Each. **$124.80**



MIDDLESEX BAFFLES AND CASES

Middlesex baffles and cases are acoustically designed by audio engineers and built by experienced wood craftsmen. Middlesex products have earned a reputation for high performance and beautiful styling. Each model has been engineered and built to complement—not simply to house—the speaker. All baffles are constructed of selected woods and veneers, strongly reinforced throughout. Hardware for hanging is supplied with each baffle.

MIDDLESEX ECONOMY "A" SERIES BAFFLES

New Economy "A" Series, sloping front baffles, available in rich mahogany finish. **Model A5-6** is designed to accommodate 5″ and 6″ speakers. **Model A8** is designed to accommodate 8″ speakers. **Model A10-12** is designed to accommodate 10″ and 12″ speakers.

Middlesex No.	Net Each	Middlesex No.	Net Each	Middlesex No.	Net Each
A5-6	$2.40	A-8	$2.85	A10-12	$4.50

MIDDLESEX "W" SERIES BAFFLES

Moderately priced "W" series available in walnut or natural finish.

Middlesex No.	Speaker	Net Ea.	Middlesex No.	Speaker	Net Ea.	Middlesex No.	Speaker	Net Ea.
WA6	6″	$3.30	WA8	8″	$4.14	WA12	12″	$7.50

MIDDLESEX DELUXE BAFFLES

Middlesex Deluxe Baffles are longer and heavier than standard enclosures. Reinforced throughout. Raised grille bars. Hand-rubbed finish in either walnut or natural.
Middlesex Model BX8—For 8″ speakers. Net **$5.25.** **Model BX12**—For 12″ speakers. Net **$7.50**

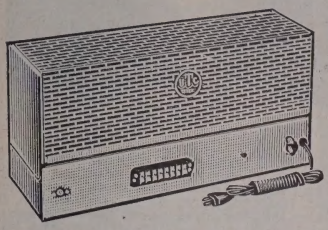
MIDDLESEX PORTABLE COVERED CASE

This case will suit every use. Deluxe Model KA12 houses two 12″ speakers and provides amplifier space. **Size:** 15″ wide, 8″ high, 10½″ deep. Shipping Weight, 20 lbs.
Middlesex Model KA12 Portable Covered Case—Net Each..... **$21.00**

96X-54A

High Fidelity Equipment

UTC LINEAR STANDARD AMPLIFIER KIT MODEL MLF



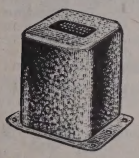
This new amplifier not only provides for full frequency response over the audio range but, in addition, sets a new standard for minimum transient distortion. An inherent weakness of the Williamson circuit lies in the fact that its negative feedback becomes positive at subsonic and supersonic frequencies. The resultant instability in use lends to parasitic oscillation at the high end and large subaudio cone excursions, both of which produce substantial distortions. The Linear Standard Amplifier uses Multiple Loop Feedback and network stabilization to completely eliminate these instabilities.

The result is a rather unique construction employing a printed circuit panel as large as the chassis with virtually all components preassembled and wired. The result is that each kit, which comes complete including tubes and cover, can be fully pretested before shipment. Additional wiring involves only the connection of 17 leads to screw terminals for completion. **Rated Power Output:** 20 watts. **Intermodulation Distortion:** .07% at 1 watt; 1% at 20 watts. **Frequency Response:** (controlled) 1 db 20-20,000 cps. **Hum and Noise:** 80 db below rated output. **Feedback:** 36 db. **Output Impedances:** (not critical), 4, 8, 16; also 2, 5, 10, 20, 30 ohms. **Tubes:** 1-12AX7, 1-6AU6, 2-5881, 1-5V4G. **Dimensions:** 5¼" x 8" x 17⅛". **Weight:** 24 lbs.

UTC Model MLF Amplifier Kit—Complete with all parts, including tubes and cover. Net Each..... **$108.00**

ACRO ULTRA-LINEAR TRANSFORMERS

"200" SERIES†



Designed for most popular type high quality circuits. They are conservatively rated and can be used in circuits requiring double the rated power. **Guaranteed Frequency Response**—±1 db, 10 cps to 40kc. **Power Response**—±1 db (max.), 20 cps to 20kc. **AC Primary Unbalance**—1% max. **Sec. Imped.** 4, 8 or 16 ohms from tapped winding. **Permissible Feedback**—25 db. **Size**—3⅝" x 3¼" x 4¼" high. Base with flange, 3⅝" x 4½". In fully potted seamless steel case. **Primary Z**—TO-250 5000 ohms; TO-270, 10M ohms; TO-230, 3M; TO-280, 9M; TO-290, 12M.

Acro No.	Recommended Tube Types	Net Each
*TO-250	6B4's; 2A3's; 6AS7G; 6L6 (class A)	$11.75
*TO-270	6V6's; 6AQ5	11.75
TO-230	6B4's or 2A3's (fixed bias), pp par. 6L6 (A)	14.50
TO-280	6L6's (class AB1 self bias)	14.50
TO-290	807's, 5881's, KT-66's as Williamson triodes	15.75

*10 watt units; all others 20 watt.

"300" SERIES†

Frequency Response—±1 db. 10 cps to 100 kc. **Permissible Feedback**—30 db. **AC Primary Unbalance**—1% max. **Insertion Loss**—(all taps) .75 db max. **Permissible DC Unbalance**—(TO-300, TO-330), 15%; others, 10%. **Impedance**—Secondary 4, 8, 16 ohms (all); Plate-to-plate, (TO-300) 6600, (TO-310) 8000, (TO-320) 3500, (TO-330) 3300, (TO-350) 6600 ohms. **Undistorted Power 20 cps to 30 kc**—(TO-300) 20 watts; (TO-310, TO-320) 10 watts; (TO-330) 50 watts; (TO-350) 100 watts. **30 cps to 20 kc**—(TO-300) 40 watts; (TO-310, TO-320) 20 watts; (TO-330) 100 watts, 30 cps to 15 kc. **Max. DC per Primary**—.75 ma except TO-330, 150 ma, and TO-350, 175 ma. **Weight**—(TO-300), 7 lbs.; (TO-310, TO-320), 6 lbs.; (TO-330, TO-350) 14 lbs. **Size**—3⅝" x 3¼" x 4¼" high. Base with flange 3⅝" x 4½" except TO-330 and TO-350 are 4" x 4⅝" x 5⅜" high.

Acro No.	Application and Tube Types	Net Each
TO-300	Ultra-Linear oper. of KT66's, 807's, 5881's and converting Williamson type circuits	$24.75
TO-310	Ultra-Linear oper. of 6V6's, EL-84's	18.75
TO-320	Ultra-Linear oper. of 6Y6's	18.75
TO-330	Push-pull Ultra-Linear 6550's or p-p par. oper. of KT66's, 807's, etc.	39.75
TO-350	Ultra-Linear oper. of 6146 tubes using tertiary winding for screen connection	49.50

†Available with additional line winding (125 and 500 ohms) at extra cost of $6.00 net except TO-330 and TO-350 extra cost is $10.00. To order, change catalog number ending from "0" to "5" (TO-300 becomes TO-305).

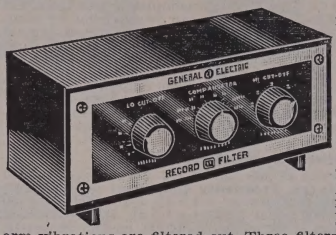
BRITISH OUTPUT TUBE MODEL KT-66

Britain's famous output tube. Versatile power tetrode for use either tetrode- or triode-connected. Use as an oscillator up to 30 mc or as RF amplifier. High slope; indirectly heated. Anode designed to dissipate 25 watts continuously with reliable performance. Use either singly or in push-pull. The KT-66 and the 6L6 can work interchangeable in any circuit.

British Model KT-66—Net Each..... **$3.50**

GENERAL ELECTRIC EQUIPMENT

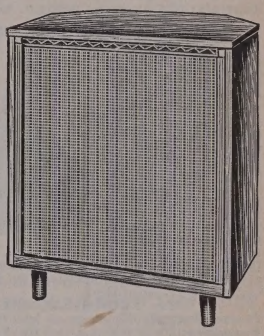
NEW 3-WAY RECORD FILTER



A triple duty high fidelity filter-compensator that restores much of the original richness to worn, warped, noisy records. Has three filters and 14 adjustments covering the full audio frequency range. Adjustments balance tone, cut undesirable noise. Rumble, hiss and scratchy noises from record imperfections or excessive turntable or arm vibrations are filtered out. Three filters are: Low Frequency Cutoff, High Frequency Cutoff and 6-position Record Compensator that matches the individual system to Flat, Eur 78, Lon LP, AES, RIAA, Col LP recording curves. Housed in attractive removable mahogany colored plastic cabinet 3⁹⁄₁₆" x 7⁹⁄₁₆" x 3⁹⁄₁₆" Shipping Weight 6 lbs.

GE Model A1-901—3-Way Filter—Net Each..... **$19.95**

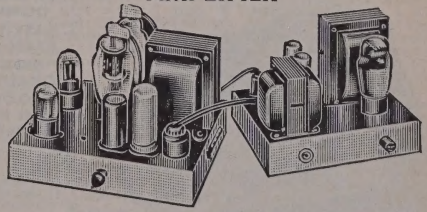
HIGH FIDELITY SPEAKER ENCLOSURE



This attractive speaker enclosure is designed for corner use or may be placed against a wall as preferred. Available in cherry, blond oak, mahogany or unfinished veneer, its simplicity of line and rich appearance will enhance the beauty of any room in which it is placed. Back and sides are sturdy plywood while the interior has a 1-inch acoustic lining. The entire front of the cabinet is covered with a woven lumite cloth which is functional as well as beautiful. **Dimensions:** 25⅝" wide, 18¼" deep, 31¼" high. **Enclosed Volume:** 6 cubic feet. This enclosure utilizes the "distributed port" design which provides for effective damping and loading of the loudspeaker at low frequencies and assures smooth full low frequency response. The Model A1-406 Loudspeaker Enclosure is designed to match the GE Model A1-400 Dual Coaxial High Fidelity Loudspeaker, and is recommended for use with other 12" speakers having a response of 50 to 70 cps for optimum performance. Acoustically correct, it brings to the user full tonal realism from 40 to 15,000 cps when used with Model A1-400 speaker. True bass and extended high frequencies supply the required musical balance for listening pleasure. The speaker may be mounted by removing the rear panel and inserting the speaker. Mounting bolts are supplied. **$59.95**

GE Model A1-406B—Blond oak cabinet. Net Each.... **59.95**
GE Model A1-406M—Mahogany cabinet. Net Each... **59.95**
GE Model A1-406U—Unfinished cabinet. Net Each.... **50.37**

STANCOR ULTRA-LINEAR WILLIAMSON AMPLIFIER



Now you can build an Ultra-Linear version of the famous Williamson amplifier, using the newly developed Stancor Ultra-Linear output transformer **A-8072.** This improved transformer and circuit provides much more distortionless power than the original Williamson circuit. **Intermodulation Distortion:** 3% at 27 watts equivalent sine wave power. **Harmonic Distortion:** Less than 1% at 25 watts and less than 0.1% at 22 watts, measured at 1000 cps. **Frequency Response:** Absolutely flat to 40,000 cps, measured at 1 watt, 10 watts and 20 watt levels. At the average listening level of 1 watt, frequency response is ±1 db at 100,000 cps.

STANCOR COMPONENTS

Stan. No.	Description	Net Ea.
WM-8	Chassis set (2 chassis, completely punched)	$ 5.75
A-8072	Ultra-Linear Output Transformer	15.00
PC-8412	Power Transformer	8.58
C-1411	Filter Choke	4.29

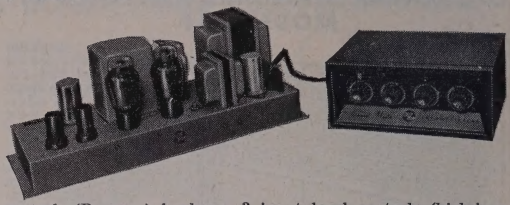
All other electronic components are stock parts and can be obtained from us for approximately $25.00 additional to above.

700-55A

Masco Hi-Fi Equipment

"CONCERT MASTER" 20 WATT HIGH FIDELITY AMPLIFIER WITH REMOTE PREAMPLIFIER

Extremely wide frequency response, together with perfect stability, provide a perfect reproducer for every tone within the range of the human ear. The Concert Master is completely free of audible hum or noise. Rumble and other noises can be overcome by using the special "Roll-Off" input. Fletcher-Munson loudness control compensates for reduced volume. Separate Bass and Treble Controls. Three separate input level adjustments on back of unit for pre-setting the level to each of the three flat response high impedance units. Three AC outlets on basic amplifier controlled by preamp. Cathode follower output of preamp allows up to 100 feet of cable. Preamp housed in hand-rubbed mahogany cabinet. Preamp chassis and panel demountable for easy console installation. U/L Approved.



TECHNICAL SPECIFICATIONS

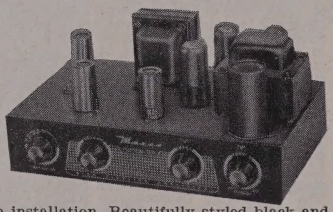
Power Output: 20 watts at less than 0.2% harmonic distortion from 20 cps to 40,000 cps. **Frequency Response:** (Basic Amp.) ±0.5 db, 10-50,000 cps at 20 watts; ±1.5 db, 8-100,000 cps at 20 watts; ±0.1 db, 10-75,000 cps at 1 watt; ±1.5 db, 5-140,000 cps at 1 watt. (With Preamp.) ±0.5 db 10-30,000 cps at 20 watts; ±1.5 db, 5-140,000 cps at 1 watt. **Intermod. Dist.:** Less than 0.5% up to 20 watts. **Phase Dist.:** Negligible. **Damping Factor:** 30 or better at 16 ohm tap. Effective output impedance approx. 0.5 ohm. **Feedback:** 26 db around output transformer and all three stages of basic amp. **Hum Plus Noise:** (Basic) 100 db below 20 watts; (With Preamp) 75 db below 20 watts. **Inputs:** (Basic Amp.) two—1 high-imp. with 3 db roll-off at 50 cps, 1 high imp. flat; (Preamp.) Four—3 high imp., flat response marked "Aux. 1, Aux. 2 and Radio", 1 equalized input marked "Mag" for low or high level magnetic or variable reluctance phono cartridge. **Controls:** (Basic Amp.) volume, AC on-off, special hum-balancing control; (Preamp.) loudness, 3 input level controls (high-imp. only), Bass, Treble, 8-position selector switch, equalization switch (high or low level mag. cartridges). **Equalization Char.:** Columbia LP, AES-RCA, NAB-LP, 78 RPM, European 78's (positions 6, 7 and 8 select high impedance, flat response inputs). **Tone Controls:** Bass, 17.5 db boost and 13.5 db cut at 20 cps; Treble, 21.5 db boost and 22.5 db cut at 20,000 cps. **Output Impedances:** 4, 8 and 16 ohms. **Tubes:** (Amp.) 2-6L6G, 2-6SJ7, 2-5V4G; (Preamp.) 1-12AX7; 2-12AU7. **Power Consumption:** 120 watts at 117 v., 60 cps. **Dimensions:** (Amp.) 6⅞" x 17" x 6¾" high; (Preamp.) 6" x 9½" x 4⅛" high. **Shipping Weights:** (Amp.) 27 lbs.; (Preamp.) 7 lbs.

Masco Model CMR-20—Model CM-20 Amplifier (less cover) with PR-1 Preamp. Complete with 6' cable, plugs. Net..... **$177.00**

Masco Model CM-20—Basic Amplifier only. Net Ea. **$119.90**

"CUSTOM TEN" 10 WATT HIGH FIDELITY AMPLIFIER

With eight-position Equalization Selector plus Bass and Treble compensated volume control. New Orthophonic recording equalization provided on Equalization switch. Pilot light socket and plug provided for remote pilot light installation. A kit of control extension shafts is supplied for custom installation. Removable front panel for custom installation. Beautifully styled black and gold panel and black chassis. Two internally fused Aux. AC power outlets. U/L Approved.



TECHNICAL SPECIFICATIONS

Power Output: 10 watts at less than 1% distortion. **Frequency Response:** 20-20,000 cps, ±1 db. **Feedback:** 15 db around 3 stages and output transformer. **Hum Plus Noise:** 80 db below full output. **Four Inputs:** 3 high-imp., marked "Aux. 1, Aux. 2 and Radio"; 1 an equalized input marked "Mag" for any low or high level magnetic or variable reluctance pickup. **Input Impedance:** (For 3 high-imp. inputs) 0.5 meg; (for Mag input) 50,000 ohms. **Input Sensitivity:** (Aux. 1, 2 and 3) 0.2 v.; (Mag. for GE-Audax) .01 v.; (Mag for Pickering-Clarkstan) .02 v. for full output. **Controls:** Bass and Treble compensated volume control, Bass tone control,

Treble tone control with AC on-off switch, special hum-balancing control, compensated slide switch for low or high output magnetic cartridges, 8-position Equalization selector switch. **Equalization Char.:** Columbia LP, AES-RCA, NAB-LP, 78 RPM, European 78's. (Positions 6, 7 and 8 select high impedance, flat response inputs). **Tone Controls:** Bass, 12 db boost, 12 db cut at 50 cps; Treble, 14 db boost, 17 db cut at 10,000 cps. **Output Imp.:** 4, 8 and 16 ohms. **Tubes:** 1-12AX7, 2-12AT7, 2-6V6GT, 1-5Y3GT. **Power Cons.:** 70 watts at 117 v., 60 cps. **Dimensions:** 12" x 7" x 8" high. **Shpg. Wt.:** 12 lbs.

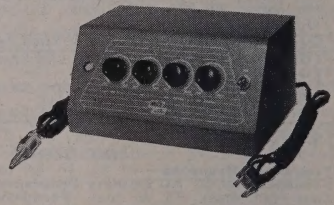
Masco Model CM-10—With tubes and removable panel. Net..... **$63.75**

MODEL EMM-6 ELECTRONIC MIXER PREAMPLIFIER

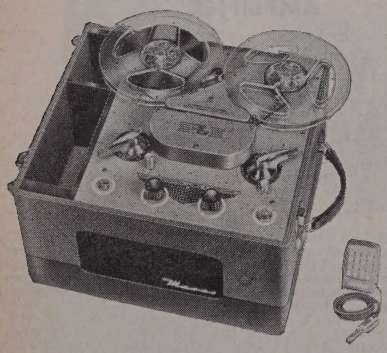
Designed for electronically mixing the outputs of up to four microphones and two phonographs or radio tuners into any amplifier, public address system, tape, disc or wire recorder, or broadcast input channel.

Provides increased flexibility for amplifiers having a limited number of inputs. Four high gain microphone inputs, two radio-phono inputs; cathode follower output. **Output:** 1.0 v. rms. **Output Imp.:** 820 ohms. **Freq. Resp.:** 50-15,000 cps, ±2 db. **Distortion:** Less than 0.75% harmonics at 1.0; rms output. **Voltage Gain:** Mike: 40 db; Radio-Phono, 18 db. **Controls:** Two mike volume, two mike or radio-phono volume. Separate On-Off power switch. **Tubes:** 3-12AX7. Selenium rectifier. **Hum Level:** −70 db at 1.0 v. output. **Power Consumption:** 10 watts at 117 v., 60 cps. **Power Supply:** 105-125 v., 50-60 cps. **Shipping Weight:** 4 lbs. **Dimensions:** 8¾" x 5½" x 4¼" high.

Masco Model EMM-6—Electronic microphone mixer and preamplifier, with 8-ft. cable and plug. Net Each.. **$39.00**



MASCO SOUND REEL DUAL SPEED TAPE RECORDERS SERIES 53



- **TWO-MOTOR MECHANISM, PRECISION MADE FOR FOOL-PROOF, BREAK-DOWN PROOF LIFETIME OPERATION**
- **EASY-TO-OPERATE CONTROLS. ALL OPERATIONS PLAINLY MARKED NEAR EACH CONTROL**
- **"HIGH-FIDELITY" TONAL QUALITY. SOUND WITH A "TRUE-AS-LIFE" QUALITY**
- **SMOOTH, "WOW"-FREE PERFORMANCE • AVAILABLE WITH RADIO**
- **CAN BE LOCKED WITH KEY • EXTRA TAPE STORAGE**
- **SIMPLE OPERATION**

Dual Speed (3¾" and 7½" per second). Dual track (up to 2 hours of recording). **Model 53** (less radio) and **Model 53R** (with AM radio) provide professional quality recordings in an inexpensive package. **Frequency Response:** 80-8,500 cps, ±3 db at 7½"/second; 80-5,000 cps, ±3 db at 3.75"/second. **Power Output:** 5 watts to internal or external speaker. **Flutter and Wow:** 0.3%. **Speed-Change Push-Button:** Permits instantaneous change of tape speed. **Monitoring Switch:** For monitoring by headphone or internal or external speaker. **Automatic Equalization:** Ensures flat frequency response at each tape speed. **Self-Powered Takeup:** Separate takeup and drive motors for minimum wow and flutter. **Motor Shut-Off Switch:** Amplifier is warmed up and standing by until control levers turn motors on. **Tu es: Amplifier**—12AX7, 6SL7GT, 6SN7GT, 6V6GT, 6X5GT; **Radio Tuner**—6BA6, 6BE6, 6SF7. **Power Consumption:** Model 53, 120 watts at 60 cps, 117 v.; Model 53R, 135 watts at 60 cps, 117 v. **All Models Also Available For 50 Cycle, 117 Volt Operation.** Balanced carrying case and mechanical construction for ready portability. Integral frame construction.

Press-To-Record button; Fast Forward and Rewind; timing indicators under both Supply and Takeup reels; outputs for external speaker and external amplifier or telephone line; inputs for mike and radio or phono. In attractive maroon and gray leatherette covered luggage-type case. Supplied with one 7" reel with 625' of tape and one empty 7" reel. Complete with crystal microphone with 7½' cable and plug. 14⅜" x 12⅞" x 10⅜" high. Weight: carrying, 35 lbs.; shipping, 40 lbs.

Either model with locking clasps and keys. Add to Net... **$3.00**

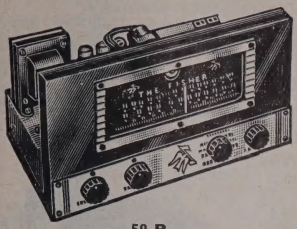
Masco Model 53 Recorder—Complete as listed above. Net Each..... **$166.67**

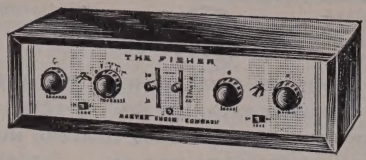
Masco Model 53R Recorder—Same as Model 53 except with built-in AM radio tuner and loop antenna. Records directly from radio to tape without additional connections. Can be used as separate radio. RF stage for maximum sensitivity and selectivity. Covers entire AM range. Broad bandwidth for fine tonal quality. Complete as Model 53 above. Net Each **$193.33**

Available for 50 cps, 117 v. operation. Add to Net..... **$6.00**

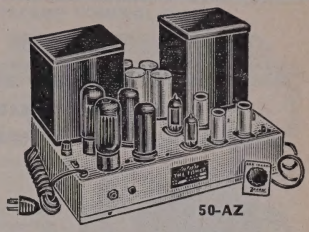
207X-54A

Fisher High-Fidelity Equipment


50-R

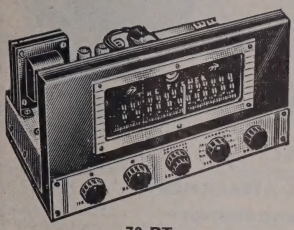


50-C

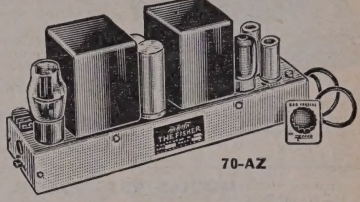

50-AZ

50-PR-C

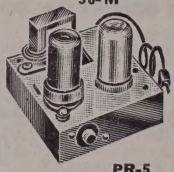
50-F


70-RT

50-M


70-AZ

FM-80


PR-5

MODEL 50-R FM-AM TUNER

A self-powered professional tuner for hi-fi enthusiasts. Two power outlets and two auxiliary inputs. **FM Section:** Armstrong system with dual limiters, comprises cascade, tuned RF and two IF stages followed by limiters and Foster-Seeley discriminator. **AM Section:** One tuned RF and two IF stages. **Audio Amplification:** One triode stage. **Frequency Response:** 20-20,000 cps, 1 db. **Distortion:** Less than 0.8% at 10 v. output, 0.04% for 1 v. **Hum Level:** Volume control at minimum, more than 100 db below 2 v. output, more than 90 db below 2 v. with control at maximum. **Tubes:** 2-6BQ7A, 1-6CB6, 1-6BE6, 3-6BA6, 2-6AU6, 2-6AL5, 1-12AU7, 1-5Y3, 1-6U5. Cathode follower output permits use of tuner at distances of up to 200 ft. from amplifier. Dual antenna inputs, 72 or 300 ohm balanced. Loop and Dipole antennas supplied. **Four Controls:** On-Off, Volume, 6-position selector (AM-Broad, AM-Sharp, FM, FM-AFC, Phono, TV), Flywheel tuner. Large dial with logging scale, channel indicator lights. Both main chassis and front-end sub-chassis are of etched aluminum and individually shock mounted. Front panel is hammertone brown with brushed brass control marker plate. Size 14¾″ x 8½″ x 9¼″ deep. 110-120 v., 60-cycle AC. Shipping Weight 19 lbs.
Fisher Model 50-R FM-AM Tuner—Net Each..... **$164.50**

MODEL 70-RT FM-AM TUNER

A self-powered FM-AM Tuner with built-in preamplifier-equalizer of the professional quality demanded by the discriminating high fidelity enthusiast. It incorporates in one chassis Fisher's finest FM-AM tuner (for description see Model 50-R) plus built-in preamplifier-equalizer for control facilities and flexibility usually found only in separate units. FM and AM sections identical with 50-R. Built-in preamplifier-equalizer has two cascaded triode stages with adequate gain for even lowest level magnetic pick-ups. **Audio Response:** ±1 db, 20-20,000 cps. **Distortion:** Less than 0.4% for 1 v. output; 0.8% for 10 v. **Hum Level:** On radio better than 90 db below 2 v. output, volume control at minimum, more than 86 db below 2 v. output at maximum. **Outputs:** Two low impedance cathode follower type, one before tone controls for recorders, plus one main output. **Six Controls:** Bass, Treble (both continuously variable), Volume, Loudness balance, 9-position Selector (AM-Broad, AM-Sharp, FM, FM-AFC, AES, Ortho, LP, NARTB, TV), and Flywheel Tuner. **Tube Complement:** 2-6BQ7A, 1-6CB6, 1-6BE6, 3-6BA6, 2-6AU6, 1-6AL5, 1-12AU7, 1-12AX7, 1-6AV6, 1-5Y3, 1-6U5. **Size:** 14¾″ x 8½″ x 9¼″ deep. 110-112 v. 60-cycle AC. Shpg. Wt. 19 lbs.
Fisher Model 70-RT FM-AM Tuner—Net Each.... **$184.50**

MODEL FM-80 FM TUNER

A quality companion piece to either amplifier, the FM-80 combines extreme sensitivity, flexibility and micro-accurate tuning. Uses Armstrong system with cascode RF stage, two IF's, dual limiters and Foster-Seeley discriminator. **Sensitivity:** Full limiting on signals as low as 1 microvolt; on 72-ohm antenna input, 1½ microvolts for 20 db quieting, 2½ for 30 db quieting; on 300-ohm antenna input, 3 microvolts for 20 db quieting, 5 for 30 db. **Frequency Response:** Uniform ±1 db 20-20,000 cps. **Controls:** (1) Variable AFC and line switch. (2) Sensitivity. (3) Station Selector. (Adj. output level control on rear). Two meters, Sensitivity and Center of Channel. **Tubes:** 2-6BQ7A, 1-6CB6, 2-6BH6, 2-6AU6, 1-6AL5, 2-12AU7, 1-6X4. 110-120 volts, 50-60 cycle AC using 50 watts. Shipping Weight 15 lbs.
Fisher Model FM-80 FM Tuner—Net Each..... **$139.50**

MODEL 50-AZ 50-WATT LABORATORY AMPLIFIER

New Z-Matic control automatically compensates for speaker or enclosure deficiencies to match acoustic balance of your room. Quality, wide range, all triode amplifier of high efficiency, low internal impedance, low harmonic distortion and intermodulation distortion at all power levels. Extremely low hum and noise level. Uses cased and potted transformers, molded capacitors, terminal board assemblies and laced cables. **High Output:** 50 watts (100-watt peak). **Frequency Response:** Uniform within ±0.1%, 20-20,000 cps. **Harmonic Distortion:** Less than 1% at 50 watts. **Intermodulation Distortion:** 0.4% at 10 watts, 0.8% at 40 watts. **Hum and Noise:** Better than 92 db below full output. **Output Impedances:** 8 and 16 ohms. Input gain control for adjustment of higher level input signals. Jack in output tube circuit for measuring plate current. Efficiency more than 55%. Separate, accessible bias control to adjust plate current. **Tubes:** 3-12AU7, 2-6CL6, 2-1614, 1-5AW4. **Size:** 8¾″ x 14½″ x 9″ high. Uses 110-120 volt, 60 cycle AC. Shipping Weight 41 lbs.
Fisher Model 50-AZ 50-Watt Amplifier—Net Each. **$159.50**

MODEL 70-AZ 25-WATT HIGH FIDELITY AMPLIFIER

New Z-Matic control automatically compensates for speaker or enclosure deficiencies. High fidelity reproduction and the absence of listener fatigue are features of this 25-watt amplifier. Low harmonic and intermodulation distortion at all levels. **High Output:** 25 watts (50-watt peak) with less than ½% distortion. **Frequency Response:** Uniform within ±0.1 db, 20-20,000 cps and ±1 db, 10-50,000 cps. **Power Output:** Constant within ±1 db at 15-35,000 cps. **Hum and Noise:** Better than 95 db below full output. **Output Impedances:** 8 and 16 ohms. **Tubes:** 1-12AT7, 1-12AU7, 2-5881, 1-5V4G. 110-120 volts 60 cycle AC. Shpg. Wt. 21½ lbs.
Fisher Model 70-AZ 25-Watt Amplifier—Net Each. **$99.50**

MODEL PR-5 PREAMPLIFIER

Use with low-level magnetic pick-ups such as GE, Pickering, Audax, Clarkstan, etc. Frequency response uniform 2 db, 30-20,000 cps. Two-stage triode amplification. 500 cycle turnover. 3¾ x3⅜″ square. Shipping Weight 3¾ lbs.
Fisher Model PR-5 Preamplifier—Net Each..... **$12.57**

SERIES 50-C AUDIO CONTROL AMPLIFIER

Features high gain, low distortion. For use with any amplifier. **5 Inputs:** 3 high level .5 meg., 1 low-level magnetic, 1 mike. **Maximum Gain:** 22.5 db from high, 53 db from low level input. **Harmonic Distortion:** 0.02% at 1 v to 0.4 at 15 v. **Intermodulation Distortion:** 0.08% at 1 v to 1.6% at 15 volts. **Frequency Response:** ±0.5 db, 20-20,000 cps. **Hum and Noise Level:** Better than 100 db below normal signal on radio input, better than 68 db with volume control at maximum, better than −68 db below signal on phono with 10 millivolt signal. **8 Controls:** Volume (also Fletcher-Munson type loudness control if desired), Loudness Control Switch, Equalization Switches (25 combinations, Bass and Treble Controls, 5 independent level controls. **Tubes:** 2-12AX7, 1-12AU7. 15¾″ x 4½″ x 6⅛″ d. 105-125 v. 60 cy. AC.
Fisher Model 50-CB (Blond Cabinet) and Model 50-CM Mahogany Cabinet Audio Control Amplifier—Net Ea. **$97.50**
Model 50-CH Amplifier without Cabinet—Net Each.. **$89.50**

MODEL 50-F HI-LO FILTER

Suppresses rumble, scratch, FM hiss, etc. Electronically sharp cut-off. Two 4-position levers give 16 combinations of high and low frequency cut-offs. 4⅜″ x 5 11/16″ x 5″. 105-125 volt, 60-cycle AC. Shipping Weight 3¾ lbs.
Fisher Model 50-F HI-LO Filter—Net Each..... **$29.95**

MODEL 50-PR-C PREAMPLIFIER-EQUALIZER

Self powered. Use with any magnetic cartridge. Volume control. Four low-frequency turn-over points, four roll-offs. 6SC7 tube. 4⅜″ x 5 11/16″ x 5″. Shipping Weight 3¾ lbs.
Fisher Model 50-PR-C Preamplifier-Equalizer—Net.. **$23.95**
Fisher Model 50-PR Preamplifier-Equalizer—Same as 50-PR-C but without tone control. Net Each..... **$22.95**

MODEL 50-M MIXER-FADER

Mixes from two input signals, fading from one to the other smoothly without noise. Cathode follower permits leads to 200 ft. Self powered. 1-12AX7 tube. 4 1/16″ x 5⅜″ x 5″ plastic cabinet. 105-125 volts, 60 cycles AC. Weight 3¾ lbs.
Fisher Model 50-M Mixer-Fader—Net Each..... **$19.95**

133-55A

Changers and Phonographs

the Voice of Music

MODELS 936HF AND 935HF TRI-O-MATIC HI-FI CHANGER ATTACHMENTS

● 2 PLUG-IN HEADS ● COUNTER-BALANCED ARM ● EXTRA-HEAVY FLOCKING
● INCLUDES 45 RPM SPINDLE ● RECORDS LOWERED, NOT DROPPED
● AUTOMATIC SHUT-OFF

Model 936HF

MODEL 936HF

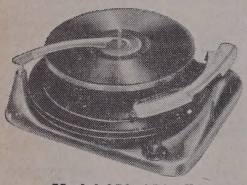
Rigid, resonance-free die cast tone arm. Leads are cloth covered shielded wire. Arm counter balanced. 2 plug-in tone arm heads (less cartridges) included, adapted to GE RPX050, 040, 041, Pickering single and turnover, Clarkstan. One head gold, one burgundy. Uses cartridges of 5 grams needle pressure. Laminated table, weighted and balanced. Extra-heavy flocking. 4-pole, 4-coil motor. V-M 45 spindle. Gentle tri-o-matic action **lowers** records. Automatic for all 3 speeds. Manual if desired. Automatic shut-off. Jam-proof mechanism. Plays 12-10", 10-12", 14-7" records, positive intermix. 6-ft. line cord. U/L Approved. 13½" x 13¼" x 9¼". Shipping Weight, 18 lbs. 3 oz. Mounted on metal pan. List Price, **$69.95.** Net Each..... **$45.47**

Model 935HF Hi-Fi Record Changer. Same as above, less pan and plugs. List **$59.95.** Net Each..... **$38.97**

Model 935HF

MODELS 951, 951GE, 956 AND 956GE RECORD CHANGER ATTACHMENTS

● AUTOMATIC SET-DOWN ● TRI-O-MATIC SPINDLE ● AUTOMATIC SHUT-OFF
● ONE-KNOB CONTROL ● POSITIVE INTERMIX ● JAM-PROOF



Model 951, 951GE

MODEL 956

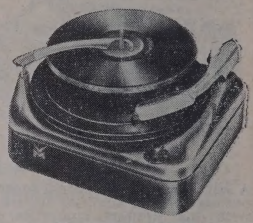
Automatic set-down, tri-o-matic spindle. Three speeds, automatic shut-off; 2-needle turnover cartridge; one-knob control; jamproof; 12-10", 10-12", 14-7" records; positive intermix of 10" and 12" records of same speed. Maroon finish, gold tone arm. 42" power cord. Metal base, rubber feet. 13⅛" x 12" x 8". Shpg. Weight, 14½ lbs. List Price, **$49.95.** Net Each..... **$32.66**

Model 951 Changer—Same as above, less mounting pan. 13⅛" x 12" x 7½". Shipping Weight, 11 lbs. List Price, **$46.50.** Net Each..... **$30.22**

MODEL 956GE CHANGER ATTACHMENT

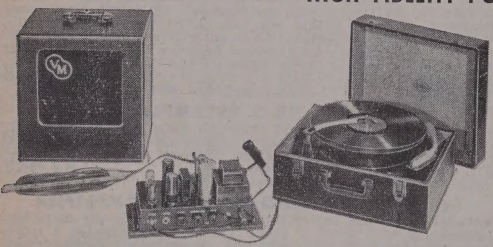
In addition to 956 features: constant-speed, 4-pole motor; automatic muting switch; GE 2-needle twin sapphire "turn-about" cartridge. U/L Approved. 13⅛" x 12" x 8⅜". Shipping Weight, 12 lbs. 5 oz. List Price, **$54.95.** Net Each..... **$35.91**

Model 951GE Replacement Changer—Same as above, less base, cords and plugs. 13⅛" x 12" x 8⅛". Shipping Weight, 12¼ lbs. List Price, **$51.50.** Net Each..... **$33.47**



Model 956, 956GE

HIGH FIDELITY PORTABLE P-A PACKAGE



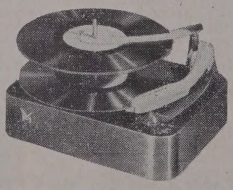
Powerful 8-watt package complete in two matched cases. Ideal for homes, stores, public meetings. Affords ear-pleasing hi-fi sound and easy portability. Includes Model 960 automatic 3-speed record changer and Model 160 "slide-out" amplifier with 10" Jensen speaker having 25 ft. cord for remote use. Amplifier remains near microphone or changer. System needs but one power outlet, has separate mike and phono input jacks and extra speaker output.

Model 960 Changer in leatherette case. 16⅝" x 13¾" x 8⅞" Shipping Weight, 18½ lbs. List **$64.50.** Net Each..... **$41.92**

Model 160 Amplifier includes 10" Jensen A1.5 PM speaker, 25-ft. cord; "slide-out" amplifier with all standard controls, 60 to 12,000 cps response. 8 watts output. 13¼" x 9" x 14⅞". Shipping Weight, 22½ lbs. List Price, **$66.50.** Net Each..... **$43.22**

MODEL 920 AUTOMATIC 3-SPEED RECORD CHANGER ATTACHMENT

Add the pleasure of playing your favorite records, automatically, through the fine speaker system of your older style radio, or your TV set. The handsome V-M 920 is modestly priced, yet its features include Siesta Switch that shuts off everything (even amplifying system and appliance plug-in base) after the last record. Gently automatically handles records of all three sizes and speeds. List Price **$39.95.** Net..... **$29.95**



V-M 45 SPINDLE ACCESSORY

Play up to 14 large center-hole records automatically. Eliminates the bother and cost of inserting center-hole adapters in each record. Fits all V-M 950 and 920 Series record changers. Slips quickly and easily over standard tri-o-matic spindles on Models 950, 950GE, 955, 955GE, 951, 951GE, 956, 956GE, 920, 970, 971, 972, 975, 980, 985, 986, 990, 935HF and 936HG. List Price..... **$2.95**

MODEL 120-A PORTABLE MANUAL 4-SPEED PHONOGRAPH ATTACHMENT

● PLAYS AUDIO BOOK RECORDS
● WORLD'S SMALLEST PHONOGRAPH
● INCLUDES 45 RPM HOLE ADAPTER

Plays all four speeds, 78, 45, 33⅓ and 16⅔ RPM for audio book records. World's smallest—10 1/16" x 8¼" x 6 1/16". A fine, clear-toned instrument in almost unbreakable red or green Styron 475. Includes separate 45 center hole adapter. Uni-point needle. Gold tone arm. With this instrument, you can play records of all four speeds through your radio or TV set. List Price **$16.95.** Net Each..... **$12.00**

PRE-CUT MOUNTING BOARDS

Ready to use, fit quickly in any cabinet or custom installation. Made of unfinished 3-ply veneer.

951 Mounting Board—For standard tri-o-matic replacement changers. ⅜" x 15⅞" x 15⅞". Net Each..... **$1.46**

935HF Mounting Board—⅜" x 16 13/16" x 17⅛". Net..... **1.79**

139-54 D

General Electric Hi-Fi Equipment

VARIABLE RELUCTANCE CARTRIDGES

These cartridges provide record reproduction unmatched in quality. Flexible cantilever mounting of the tip permits the tip to follow groove intimately and without chattering. Needle talk reduced to a minimum by light stylus assembly and high vertical compliance. These cartridges discriminate against vertical components in stylus movement, preventing reproduction of vertical noises on the record. Low distortion, low record wear, unaffected by normal variations in temperature and humidity. Retracting stylus protects itself from damage.

TRIPLE-PLAY CARTRIDGES

Plays 33 and 45 rpm microgroove or standard 78 rpm records using a turn-around retracting stylus. Dual sapphire tipped, baton type stylus is easily replaceable. Both long and short knobs are included to fit most tone arms. All necessary mounting hardware and easy-to-follow installation instructions are included. Size 23/8" x 1 3/16" x 1 1/16". Shipping wt., 4 oz.

Model RPX-050 Dual Tip Cartridge. With .001" sapphire tip for 33 and 45 rpm records and .003" sapphire tip for 78 rpm records. Net Each..... $8.37

KNOB KIT FOR TRIPLE-PLAY CARTRIDGES

Model RKP-009—Includes washers, spring and plastic knobs, long and short shank. Net Each..... 19c

SINGLE-STYLUS CARTRIDGES

These cartridges have replaceable single-tipped stylus. Fit any pickup with ½" mounting centers. 1 21/64" x ¾" x 5/16".

Model RPX-040—For standard 78rpm records. Minimum needle pressure, 6-8 grams. 10mv output at 1000 cps. With .003" sapphire stylus. Shipping Weight, 4 oz. Net Each. $5.97

Model RPX-041—Same as RPX-040, with .001" stylus for microgroove. Net Each..... $5.97

"GOLDEN TREASURE" CARTRIDGES

Triple-Play Turn-Around Cartridge. These deluxe gold plated cartridges feature diamond tips for minimum record wear and longest stylus life. They are designed for those who demand the best to protect their records. All models have diamond tips except RPX-052 which has diamond for the microgroove side, but sapphire for the 78 rpm side. Shipping weight, 6 oz.

Model RPX-052 Dual Tip Cartridge. With .001" diamond tip and .003" sapphire tip. Net Each..... $23.37

Model RPX-053 Dual Tip Cartridge. With diamond tips .001" and .003". Net Each..... $34.74

Single Stylus Cartridge. Same high quality as "Golden Treasure" Triple-Play Cartridges above, but with one diamond tip only. Weight, 6 oz.

Model RPX-061 Single Stylus Cartridge. With .001" diamond tip for 33 and 45 rpm records only. Net Each.. $20.37

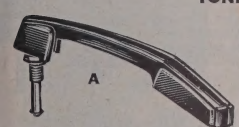
Model RPX-063 Single Stylus Cartridge. With .003" diamond tip for 78 rpm records only. Net Each..... $20.37

REPLACEMENT STYLI

G.E. No.*	Radius, In.	Net	G.E. No.*	Rad., In.	Net
RPJ-007(S)	.001, .0025	$3.57	RPJ-006(S)	.0025	$2.10
RPJ-010(S)	.001, .003	3.57	RPJ-001(S)	.003	2.10
RPJ-013(D-S)	.001, .003	18.60	RPJ-004(D)	.001	16.50
RPJ-011(D)	.001, .0025	29.97	RPJ-002(D)	.0025	16.50
RPJ-012(D)	.001, .003	29.97	RPJ-003(D)	.003	16.50
RPJ-005(S)	.001	2.10			

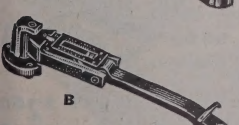
*(D)—Diamond; (D-S)—Diamond, Sapphire; (S)—Sapphire.

TONE ARMS



A

Model UPX-004 (Fig. A)—Tone arm for playing 33⅓ and 45rpm records. Equipped with GE RPX-041 cartridge. Net Ea. $9.57



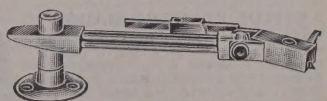
B

Model UPX-006 (Fig. B)—Plays Equipped with RPX-050 cartridge. Net Each $11.97

Model UPX-009—Conversion arm for Webster-Chicago "1" changer models. Equipped with RPX-050 Triple Play cartridge. Net Each..... $9.33

Model UPX-111—Triple Play cartridge (RPX-050) in a Webster plug-in head. Net $9.57

A1-500 "BATON" TONE ARM



Built of strong, light-weight aluminum for minimum lateral and vertical inertia. Cartridge pressure quickly and accurately adjustable by means of sliding weight. Stylus pressure shown directly in grams on a calibrated scale. Cartridge head tilts upward 90°. Precision ball bearing system, outstanding tracking ability, spherical base mount, no torsional resonances. Standard ½ inch cartridge mounting centers. $31.95

Model A1-500—10⅞" long for records to 12". Net Each. $35.50

Model A1-501—14⅛" long for records to 16". Net Each.

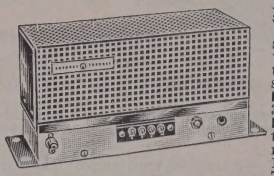
258-54A

A1-200 PREAMP CONTROL UNIT

A completely self-contained, self-powered unit. It combines the functions of an equalized preamp, plus adjustable record compensation, program input selection, individual bass and treble tone controls, and loudness control. Designed primarily for GE cartridges, but may be used with other makes by slight modifications. **Selector Switch: 1,** Noisy 78; **2,** European 78; **3,** AES; **4,** Flat; **5,** LP records; **6,** Radio; **7,** Auxiliary. Treble control continuously variable; 15 db boost and 14 db atten. at 15,000 cps. Bass control continuously variable; 13 db boost at 50 cps, 15 db atten. at 50 cps. Loudness control compensates for reduced aural sensitivity at low levels, may be replaced by conventional control through switch at rear of chassis. **Output:** 2 volts nominal. **Output Impedance:** 4000 ohms. **Gain:** 46 db. **Distortion:** (harmonic) less than 1% with 20mv input; less than 2% with 70mv input. $57.95

Model A1-200—Net Each.....

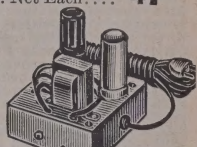
A1-300 10-WATT HI-FI AMPLIFIER



A high-quality basic "flat" amplifier. Compact in size. 15 db inverse feedback loop, split-load triode phase inverter drives two 6V6GT tubes in push-pull output stage. Hum balance control. **Frequency Response:** ±2db, 30-15,000 cps at ½ watt out. **Distortion:** (harmonic) less than 1% at 10 watts; intermodulation less than 5% at 10 watts. **Hum and Noise:** 70 db below rated output. **Input Sensitivity:** 2 volts for 10 watts output with provision for increasing to 0.3 volts. **Tubes:** 1-12AX7; 1-6C4; 2-6V6GT; 1-5Y3. 105-120 volts, 60 cycles.

Model A1-300—12¼" x 4½" x 5½" high. Net Each.... $47.75

PHONO PRE-AMPLIFIER

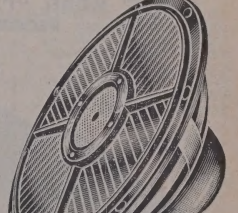


New self-powered model. Increases output of GE cartridges to higher level, allowing use with any amplifier. Includes improved equalizing network, permits use of up to 50-ft. of cable. With phono input jack on chassis. 14-in. of shielded cable and plug. 6SC7 tube and selenium rectifier, and instructions. For 110-120 volts, 60 cps. 3½" x 3½" x 1¼". **Model UPX-003A**—Net. $10.77

RECORD COMPENSATOR

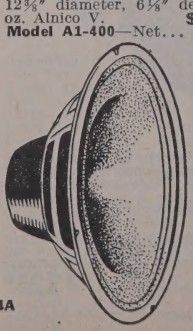
Designed for GE cartridges. An adjustable high impedance passive network. 5 settings include 2 scratch filter positions for noisy records. Positions: **LP** (Columbia 33⅓); **AES** (RCA types); **Flat** (no roll-off beyond 1000 cps); **Good** (early 78rpm shellac pressings); **Poor** (early 78rpm with limited HF response and high noise level). Designed for connection between pickup cartridge and pre-amplifier input. Long, threaded, ⅜" diam. bushing is provided for mounting in panel up to ¾" thick. May be mounted in any position. 2⅛"x2"x2". Depth behind panel, 4". Wt., 6 oz. **Model A1-900**—Net Each..... $8.95

A1-400 COAXIAL SPEAKER



12" dual coaxial Hi-Fi speaker. Exceptionally wide angle dispersion. Tweeter unit mounted on a slotted baffle plate which serves as a tweeter baffle and reduces interference between the woofer and tweeter units. The slotted plate covers entire front of speaker. Speaker may be "front-mounted". **Frequency Response:** 40 to 15,000 cps. Impedance, 8 ohms. **Power Rating:** 25 watts integrated program material. No external crossover required. Smooth response, reduced distortion. **Dimensions:** 12⅜" diameter, 6⅛" deep. 14.5 oz. Alnico V.

Model A1-400—Net... $41.95



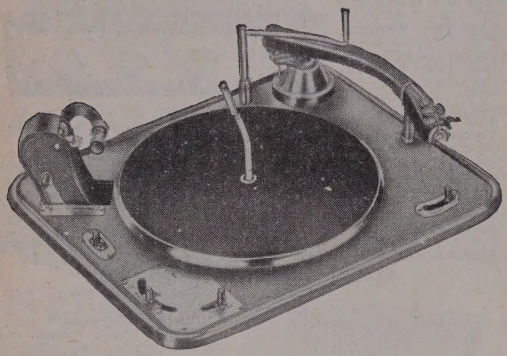
S1201A DELUXE SPEAKER

This speaker is an improved model of the famous S1201D speaker. Its new design assures extremely smooth, wide frequency response over a range of from 50 to 13,000 cps. It has been designed for moderately-priced high fidelity installations, for public address systems and for replacement in home radios. It is rated at 25 watts undistorted power. Aluminum base voice coil and molded cone. **Resonance:** 65 cps. **Power Capacity:** 25 watts. Dust cover. Plated finish.

GE Model S1201A— Net Each..... $20.37

GARRARD *Changers and Player*

"CROWN" MODEL RC90 RECORD CHANGER



No other record changer can match the features of the Garrard "Crown" record changer.

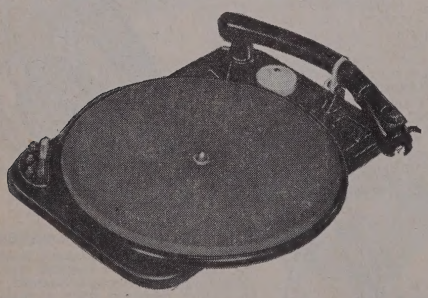
Accessible Stylus Pressure Adjustment—Prolongs life of records by enabling you to keep correct weight of stylus upon delicate grooves.

Balance Mounted Tone Arm—Guarantees true tangent tracking, eliminating disturbing resonances.

Plays all sizes, all speeds. New strong, silent four-pole motor with all three speeds adjustable. Speed adjustment by eddy current brake control. **All** speeds are, therefore, magnetically controllable, with sufficient variation at each speed for any purpose. New design of gentle record platform—**no overhead bridge.** Manual position to cut out changing mechanism and auto trip when desired for playing single records. Professional type finger lift for manual use of pickup arm. Improved new stepped-pulley drive with flywheel type intermediate wheel for absolutely flutter-free running; no belts. Fast changing cycle, regardless of speed of turntable. Automatically stops after last record and tone-arm returns to rest. Supplied with two plug-in heads which accommodate all modern cartridges. Equipped both with Muting Switch and suppressor network across AC switch to eliminate loud "plops" when machine shuts off. Intermediate wheel automatically retracts when switched off. Operates at 100 to 130 or 200 to 250 volts, 60 cycles (40 and 50 cycle motor pulleys available). 15½" left to right by 13¾" front to rear by 3⅞" below motor board. (Fits into former Garrard motor boards). Unit plate and pickup arm finished with durable high gloss enamel and chromed accessories. All levers cadmium plated and passivated. Complete with regular spindles, one 6 ft. line cord and one 4 ft. pickup cable, both with pin jack terminals-transit fixing screws, two plug-in cartridge shells, template and complete instructions.
Garrard Model RC90—Net Each..... **$69.50**

Model GX/T90 Turnover Cartridge in Garrard Shell for Model RC90 Record Player—Net Each..... **$6.00**

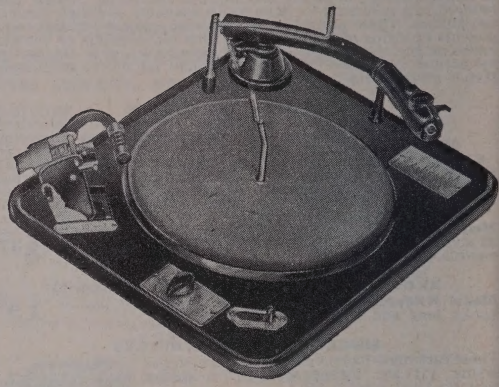
"CREST" MODEL "T" THREE-SPEED MANUAL RECORD PLAYER



Incorporates all basic record playing features of Model RC80. Adjusts precisely to all speeds. Start by moving arm, shuts off automatically. Fits all popular cartridges. Condenser-resistor network across switch eliminates shutoff noise. 4 pole heavy duty motor. 45 RPM adaptor. Plays all records without plugs. Easy to operate, long life. Supplied with one 6 ft. line cord and one 4 ft. pick-up cord, both with pin jack terminals. Cabinet Dimensions: 13¾" left to right; 12¾" front to rear; 3¼" clearance below top of motor board 100/300 and 200/250 volts. 60 cps. 50cps bushings available.
Garrard Model "T"—Net Each..... **$32.50**

Model GX/T90 Turnover Cartridge in Garrard Shell for Model T Record Changer—Net Each..... **$6.00**

"TRIUMPH" MODEL RC80 RECORD CHANGER



This Garrard Record Changer has now been established as the standard of the industry and has received unqualified praise from engineers, critics and music lovers. The RC80 features the advanced engineering and traditional British craftsmanship that have made Garrard internationally preferred. Your best buy in a record changer. Plays all size records and at all speeds. All records are handled by a gentle pusher-type platform that changes even badly warped records. The heavy drive shaft is exclusive with Garrard; gives consistent quality performance at low speeds; wow and wavers are eliminated. Also has interchangeable plug-in heads carefully engineered to accommodate user's choice of crystal, magnetic or variable reluctance cartridges for standard and microgroove reproduction.

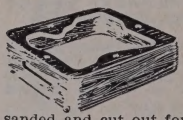
Heavy duty silent motor, with absolutely no rumble, maintains constant speed throughout a wide variation in line voltage. The Muting Switch eliminates noises while changer is operating on run-in or run-off grooves. Unit shuts off automatically after last record is played. Start, stop and reject lever are combined and located conveniently away from tone arm.

Overall size: 13½" wide, 8" high, 15½" deep. Requires 3½" clearance below motor board, 5½" above. For 100-130, 200-250 volts. 60 cycles. Complete with regular spindles, one 6 ft. line cord and one 4 ft. pickup cable, both with pin jack terminals; transit fixing screws, two plug-in cartridge shells, template and complete instructions. Shipping weight 20 lbs.
Garrard Model RC80—Less cartridge. Net Each..... **$49.50**

Garrard Model GX/80—Turnover crystal cartridge installed in Garrard Shell. Net Each..... **$6.00**

SPECIAL SPINDLE FOR LARGE-HOLE 45 RPM RECORDS

Is not included with either Garrard changer. Easily inserted wide spindle, remains stationary when record is played. Only a small collar revolves, assuring longer center hole and record wear. For either RC80 or RC90 changers. Net Each..... **$3.50**



Model WB Wood Base—To fit RC-80 or RC-90. Net Each.. **$5.95**

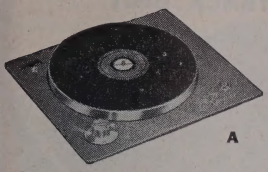
Model MB Mounting Board—⅝" gumwood, smooth sanded and cut out for RC-80 or RC-90 (specify). Unfinished surface, for easy staining. Net Each..... **$2.50**
Model WBT—Wood base to fit Model "T". Net Each.... **$5.25**
Model MBT—Mounting board to fit Model "T". Net Ea.. **2.50**

STYLUS PRESSURE GAUGE

Developed to meet demand for a simple, accurate, inexpensive instrument to measure stylus pressure of pickups. Scientifically calibrated, with large, easy-to-read markings at one gram intervals. All moving parts are lightweight alloy and completely sealed. Performance characteristics will not alter due to weather conditions or continued use. Handsome, red and ivory, plastic case insures strength and durability. Simply place gauge on turntable with the pickup arm in playing position. Rest stylus point on balance arm pan. Depress indicating lever until balance point is shown by pointer appearing in center of small window. Indicating lever will now be in line with stylus pressure on gram scale.
Garrard Pressure Gauge—Net Each..... **$2.50**

610-54A

Rek-O-Kut Phono Equipment


A

B

Fig. A. Model B-12H Rondine 3-Speed Turntable—The finest of Rek-O-Kut's 12-inch turntables. Hysteresis synchronous motor assures smoothest possible operation, virtually eliminating wow, rumble and flutter. Single selector knob with "Off" position next to each of the three speeds—no need to turn through other speeds to turn off turntable. Noise level more than 50 db below average recording level. Permanently affixed strobe disc for instant speed check. Built-in retracting 45 rpm hub requires no external adapter. Cast aluminum deck permits mounting in most phono cabinets; finished in gunmetal gray. 15¾" x 14". Clearance below deck 6½", above deck 1½". Jewel light indicates off-on. Shipping Weight 16 lbs.
Model B-12H—DeLuxe Rondine. Net Each..... **$119.95**

Model B-12—3-Speed Turntable same as above but has 4-pole induction motor and noise level is 40 db below average recording level. Net Each..... **$74.95**

Fig. B. Model L-34 Rondine Jr. 2-Speed Turntable—33⅓ and 45 rpm speeds for currently popular recordings. 4-pole induction motor. Noise level more than 40 db below average recording level. Controlled by single slide switch that locks into position. Strobe disc and 45-rpm retracting hub built-in to turntable. Heavy steel plate deck, hammertone gray finish. 12" x 15" overall, 1⅜" above deck, 5" below. Weight 14 lbs.
Model L-34—2-Speed Turntable. Net Each..... **$49.95**

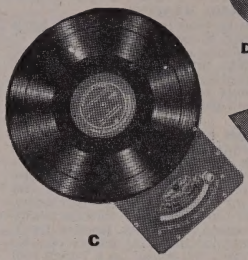
Fig. C. Model CVS-12 Continuously Variable Speed 12" Turntable—Any speed 20 to 100 RPMs, 50 or 60 cycles. Ideal for areas of fluctuating power, or with portable power plant. **Dimensions:** 16" long, 12" wide, 1½" above board, 5" below.
Model CVS-12—Net Each..... **$84.95**

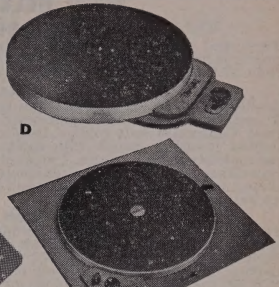
Model C-43-V—Case for CVS-12. Net Each..... **$24.95**

Fig. D. Model G-2, 78 and 33⅓ RPM, 16" Turntable—A precision lathe-turned balanced turntable of special aluminum alloy normalized to prevent distortion. Constant speed induction motor. Manual shift. Accelerates to 78 RPM in ¾ turn, to 33⅓ RPM in ¼ turn. Meets NAB standard for speed variation and wow content. **Dimensions:** 16" long, 20" wide, 2½" high above board, 5" below. Weight 26 lbs.
Model G-2—Net Each..... **$137.50**

Model G-2—De Luxe. With Hysteresis Synchronous Motor, and Mastermatic Shift. Net Each..... **$179.95**

Model G103A—45 RPM Idler and Adapter for above. Net. **$8.00**


C


D

E

Fig. E. Model B-16H 3-Speed, 16" Transcription Turntable—Designed for the three popular recording speeds. **Noise Level:** 50 db below average recording level. **Turntable:** cast aluminum, lathe-turned, sub-mounted in base. **Motor:** Hysteresis Synchronous. Meets NAB standard for speed variation and wow content, Instantaneous speed change. Accelerates to 78 RPM in ¾ turn, to 45 and 33⅓ RPM in ¼ turn. **Finish:** Blue-grey wrinkle. **Dimensions:** 18¾" long, 20" wide, 1½" high above board, 6" below. Weight 30 lbs.
Model B-16H—Net Each..... **$250.00**

Model LP-743 3-Speed, 12" Transcription Turntable—(Not Ill.) An excellent turntable priced between deluxe and ordinary models. Designed for easy replacement of obsolete turntables in the average console. **Noise Level:** 30 db below average recording level. **Turntables:** aluminum casting, lathe-turned and balanced. **Motor:** Induction type, smooth, quiet, vibration-free operation. Lamitex pulley. **Shaft:** hardened, ground and polished. Instantaneous speed change while running. **Finish:** Grey Hammertone. **Dimensions:** 12" long, 15" wide, 1⅜" high above board, 5" below. Weight 10 lbs.
Model LP-743—Net Each **$59.50**

Model C-43—Case for LP-743. Net Each..... **$22.95**

CONSOLE CABINET

F

Fig. F. Model C-7B Console Cabinet for B-16H Transcription Turntable—Designed to receive B-16H turntable without the use of screws or bolts. Floats on felt. Features two storage compartments with piano hinges and flush ring-latches. Includes built-in electrical outlets and adjustable leveling casters. **Finish:** Metallic-grey. **Dimensions:** 33" H., 22" W., 20½" D.
Model C-7B—Net Ea.. **$109.95**

"CHALLENGER" PROFESSIONAL 13¼" 3-SPEED DISC RECORDER

The "Challenger" is a professional 13¼" disc recorder for cutting 33⅓, 45 and 78-rpm masters from 6" to 13¼". 16" pickup arm with dual sapphire magnetic cartridge plays up to 16" transcriptions, standard commercial pressings and micro-grooves. Precision machined aluminum turntable with 2 double-duty neoprene idlers for internal rim drive. Overhead recording mechanism features the Liftomatic Safety Cam that prevents double cutting and damage to cutting stylus by automatically raising stylus as it approaches center of record. Easily interchangeable lead-screws. Sturdily constructed using the unit assembly method with proven REK-O-KUT recording components. 10-inch wide-range PM speaker. Built-in Model R-8A Amplifier (described below). Sturdy plywood case covered with gray leatherette cover. Lid contains the speaker. Operates on 105-125 volts, 50-60 cycles AC. Size 25 x 22 x 12 inches. Wt. 65 lbs.
DeLuxe Model Challenger Recorder—Net Each.... **$459.95**

Model R-8A Amplifier Only—Output: 13.5 watts. **Frequency Response:** 30-20,000 cps ±1 db. **3 Inputs:** Microphone, Tuner, Other. **Separate Bass and Treble Controls:** Continuously variable, permit up to 14 db boost and up to 14 db attenuation at 50 and 10,000 cps respectively. 3-position monitoring loudness level switch. **Gain:** 120 db from mike inputs; 80 db from tuner and auxiliary inputs; 90 db from phono pickup. **Output Impedances:** 8, 15 and 500 ohms for cutter and speaker. **Tube Complement:** 2-6SJ7, 2-6SL7, 1-6SC7, 2-6V6, 1-5Y3. **Size:** Panel, 19 x 6¼"; chassis 17" x 8¾" base. For rack mounting. **Power Consumed:** Uses 105-125 volts, 50-60 cycles, 100 watts. Wt. 17 lbs.
Model R-8A—Amplifier only. Net Each..... **$149.95**

Model C-85 Portable Case for Amplifier Only—For Models R-8A or R-5A Amplifiers only. Net Each..... **$22.95**

THE REK-O-KUT RECITALIST

A portable 3-speed high fidelity phono for professionals, music lovers, schools, advertising agencies, etc. A microphone input enables "mixing" of live music or voice with recording, or as a public address system. The POLYPHONIC SELECTOR maintains tonal balance and equalization for any type of record.

Turntable: Precision machined aluminum 3-speed (78, 45 and 33⅓ RPM). Internal rim drive. Heavy-duty, dynamically balanced motor. **Pickup Arm:** 16" with dual stylus carriage, plays 16" broadcast transcriptions, commercial pressings and micro-groove records. **Speaker:** 10" PM type with 6.8 oz. Alnico V Magnet.

Amplifier: Frequency response controlled by Polyphonic Selector. Pos. No. 1 uniform within 1 db from 50 to 15,000 cycles; Pos. No. 2 bass up 4 db at 100 cycles, treble uniform above 5,000 cycles; Pos. No. 3 bass up 6 db at 100 cycles, treble uniform above 5,000 cycles; Pos. No. 4 uniform from 50 to 3,000 cycles, increasingly sharp cutoff, 14 db down at 10,000 cycles. **Case:** Sturdy plywood leatherette covered. **Dimensions:** 17" wide, 9½" high, 21¼" deep closed. Weight 38 lbs.

Model RP-43-M Recitalist—Complete with magnetic pickup. Net Each..... **$239.95**

Model RT-43-M Recitalist—As above but with twin speakers. Net Each..... **$279.95**

THE REK-O-KUT RHYTHMASTER

Same as the Recitalist except has continuous variable speed turntable from 25 to 100 RPMs.

Model RP-43-VM Rhythmaster—Complete with Magnetic pickup. Net Each..... **$279.95**

Model RT-43-VM Rhythmaster—As above but with twin speakers. Net Each..... **$319.95**

169-55A

Tape Recorder, Hi-Fi Equipment

NEW BELL 3-SPEED TAPE RECORDER AND PLAYBACK UNIT

MODEL RT-75

First, and above all, a tape recorder and playback unit with excellent frequency response and in which wow and flutter are less than .25% at fastest tape speed.

FAST FORWARD AND REWIND

Model RT-75 features pushbutton fast-rewind (70 seconds for a 7" reel) and pushbutton fast-forward speeds (90 seconds for a 7" reel). Controls include volume, boost and cut for tone, and a pushbutton recording switch with safety interlock which positively prevents accidental erasure. Two microphone inputs—one for high impedance crystal, one for dynamic or ceramic—and a radio, phono, or TV input. Microphone and phono input can be recorded at the same time.

POSITIVE ACTION CONTROL

Its positive action control lever permits selecting any of three tape speeds—7.5 inches per second for highest fidelity (50 to 9,000 cycles per second ±3 db), 3.75 ips for general purpose, home movies, slide projector narration, music practice sessions, etc. (50 to 6,500 cps ±3 db), and 1.875 ips for long lectures, speech classes, meetings (50 to 4,000 cps ±6 db). Equalization is automatically effected when you change from one speed to another. Its dual-track recording head doubles the amount of material which can be recorded on any tape—4 hours of recorded sound on a 7-inch reel at the 1.875 ips speed! It handles all reels of 7-inch and smaller diameters, and tape loading has been greatly simplified.

EXTRA LARGE SPEAKER

For better sound, its internal speaker is an extra large, 6" x 9" oval, wide range unit. Outputs include one 3.2 ohm for external speaker, one 500 ohm, and one Hi-Z external amplifier output for feeding hi-fi music systems, which bypasses the unit's output stage.

OUTSTANDING DESIGN

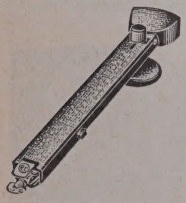
Its handsome case, covered with durable plasticized fabric, has ample tape and microphone storage space. A removable cover plate permits easy access to tubes and fuse. The unit is equipped with pilot light, recording indicator light, and neon-type level indicator.

GENERAL SPECIFICATIONS

Power Output: 3.5 watts. **Tubes (5):** Two 12AX7, one 6C4, one 6V6GT, one 6X5GT. **Power Consumption:** 100 watts, 110-120 volts, 60 cycles. **Size and Weight:** 16⅜" x 15" x 9⅛", 35 lbs.
Bell Model RT-75—Furnished complete with microphone, 600-ft. reel of inside-coated tape, 5" takeup reel and an instruction manual. Net Each..... **$149.95**

PICKERING HIGH FIDELITY PHONOGRAPH EQUIPMENT

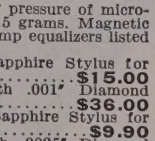
NEW MODEL 190D PICKUP ARM



The Model 190D arm is designed to overcome the disadvantages of all conventional arms, particularly noticeable with LP microgroove records. This is the high quality Model 190 arm redesigned to require less mounting space. This new and smaller arm, when combined with a typical high quality manually operated turntable, requires a 17" x 17" motor board.

Features optimum vertical-to-lateral moment of inertia, minimized vertical mass eliminates extra vertical load, absence of spurious arm resonance at any frequency lower than 3 gram centimeters pivot friction. Bearings are rugged and trouble-free. Offset head reduces tracking error to less than ±2½°. Stylus cannot strike turntable or center-pin. Adjustable for tables from ½" to 2" high. One hole mounting, plug-in cartridge holder, magnetic arm rest.
Pickering Model 190D Pickup Arm—Net Each..... **$31.50**
Replacement Heads—For Models 161L and 161M professional type Pickups.
Pickering Model 160L or 160M Head—Net Each..... **$63.75**

CARTRIDGES

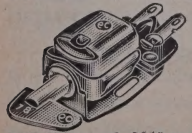


Designed and manufactured to produce the finest quality reproduction of lateral recordings. They afford the cleanest and smoothest response ever achieved and incorporate all the known requirements for perfect tracking with minimum record wear. Full frequency response through the audio spectrum. Output 50 millivolts, ±2 db; tracking pressure of microgroove models, 5 grams; standard models, 15 grams. Magnetic type cartridges, they require the use of preamp equalizers listed at right.
Pickering Model S-140S—With .001" Sapphire Stylus for Microgroove Recordings. Net Each..... **$15.00**
Pickering Model D-140S—As above with .001" Diamond Stylus. Net Each..... **$36.00**
Pickering Model S-120M—With .0027" Sapphire Stylus for Standard Recordings. Net Each..... **$9.90**
Pickering Model D-120M—As above with .0025" Diamond Stylus. Net Each..... **$24.90**
Pickering Model R-150—Without Stylus and for use on home record playing phonographs only Net Each..... **$9.90**

REPLACEABLE STYLI FOR MODEL R-150 CARTRIDGE

SAPPHIRE	Net	DIAMOND	Net
S-20—.0020".....	$2.40	D-20—.0020".....	$15.00
S-25—.0025".....	2.40	D-25—.0025".....	15.00
S-30—.0030".....	2.40	D-30—.0030".....	15.00

MODEL 260DD TURNOVER

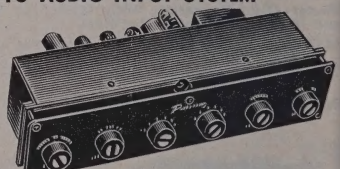


Uses two back-to-back cartridges with diamond-tipped styli. Similar to above cartridges in characteristics. Plays 33⅓, 45 and 78 rpm records. Output, 30 millivolts at 10cm./sec. Mounts easily on any arm. Response essentially flat, 20-20,000 cps. Shipping Wt., 4 oz. Net Each..... **$60.00**
With Diamond .001" and Sapphire .0027" styli. Net.... **$48.00**

220 AND 240 MINIATURE CARTRIDGES

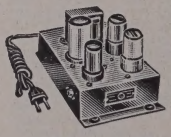
Individual units in 260 pickup. With universal adapters for mounting in all quality arms.
S-220—Sapphire. .0027". Net Each..... **$12.60**
D-220—Diamond. .0027". Net Each..... **27.60**
D-240—Diamond. .001". Net Each..... **37.50**

MODEL 410 AUDIO INPUT SYSTEM



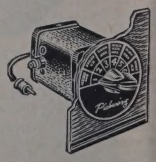
The Pickering 410 Audio Input System (equalizer-preamplifier) is designed to serve as an audio control center. Three input channels are provided; two are for high level audio signals and one for magnetic type pickups. Its design features include:
Accurate equalization for all magnetic arms; 3-position record compensator; 5-position low frequency control; 4-position high frequency control; minimum intermodulation and harmonic distortion; extremely low noise and hum level; 5 tubes. Size 13½" x 6¾" x 6".
Pickering Model 410 Audio Input System—Net Each. **$99.00**

MODEL 230H PREAMPLIFIER



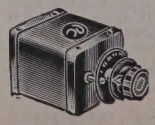
New self-powered Equalizer-Preamplifier. High impedance output, 2 volts average. Response: ±2 db from 40-20,000 cps. Less than 0.2% intermodulation distortion. Full bass compensation. Operates on 115 volts, 60 cycles AC Tube complement: 6C4, 6X4, 6AU6. Size 8½" x 5¼" x 4½" high. Shipping Weight 3 lbs. Less tubes.
Pickering Model 230H—Net Ea. **$24.00**

NEW MODEL 132E RECORD COMPENSATOR



A new position on the compensator matches the new Orthophonic-AES recording curve which has been adopted by RCA-Victor, Columbia, Capitol, Decca, and is being considered as a uniform recording curve by the entire industry. Other positions on the compensator are: European 78, London 33-old LP, Old Capitol-AES, maximum highs-maximum bass, and noisy records. No power required. Only single connection. Size 1⅞" x 2" x 5". With plug.
Pickering Model 132E Record Compensator—Net Each..... **$12.00**

MODEL 163A EQUALIZER



A loss-type equalizing network. It is designed to compensate for most of the commonly encountered record characteristics. Five position switch compensates for American, European, N. A. B., Orthacoustic, etc. 500/600 ohms output.—60 db. Size 3½" x 3¾" x 5". Shipping Weight 2 lbs.
Pickering Model 163A—Net Ea.. **$48.00**

687X-55A

Tape Recorders, Headphones

NEW WILCOX-GAY TAPE RECORDIOS

4A10

WITH PRESTOMATIC • PUSH-BUTTON KEYBOARD FOR EASIEST OPERATION EVER ACHIEVED

MODEL 4A10 PUSH-BUTTON TAPE RECORDIO

A low priced 2-speed Tape Recordio featuring Wilcox-Gay's exclusive "PrestOmatic" automatic push-button keyboard. It's so simple to use even a child can operate it. Click—it records. Click—it plays back. The five push-buttons give a finger-tip control and the easiest operating ever achieved. The 4A10 is a two-speed dual track recorder with one speed for life-like reproduction of music and the second for long voice reports and office conferences. It plays back through its own 5" x 7" speaker, or through an external speaker or P. A. system if desired. Two input jacks are provided, one for microphone and one for radio, phono or P. A. The recording lock prevents accidental erasure of valued tape. Other controls include the full-range tone control, the fully compensated volume control, and the speed control for 3¾ and 7½ inches per second. Uses 3, 4, 5 and 7-inch reels and has a convenient scale for estimating the amount of tape played or remaining in terms of minutes. High speed rewind, both forward and reverse. Two neon recording level indicators. Built-in remote control outlet. Handsome 2-tone case with removable lid has 2 roomy storage compartments for extra tape reels, microphone and other accessories. A completely portable unit weighing only 26 lbs.

Wilcox-Gay Recordio Model 4A10—Complete with super-sensitive microphone and attractive 2-tone luggage-type case. Net Each..... **$112.13**

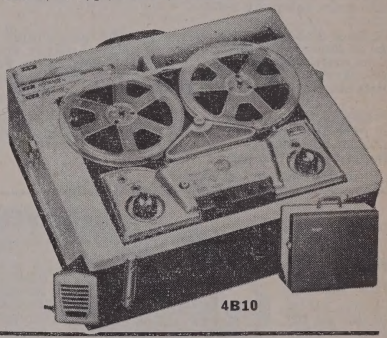
RECORDING TIME—ALL MODELS LISTED

5-inch reel—at 3¾"/second, 1 hour; at 7½"/second, ½ hour.
7-inch reel—at 3¾"/second, 2 hours; at 7½"/second, 1 hour.

MODEL 4B10 STEREOPHONIC TAPE RECORDIO

This new Wilcox-Gay Tape Recordio features a dual speaker system for true 3-D stereophonic sound in addition to the exclusive "PrestOmatic" push-button control. Two 5" x 7" speakers provide a professional quality stereophonic reproduction of favorite music for true 3-D listening. The same push-button automatic operation as in the model above plus the same features. In addition an Easy View Selection Indicator makes it easy to quickly locate any selection on a tape by referring to numbers on a pointer dial as the tape is rapidly run through.

Wilcox-Gay Recordio Model 4B10—Complete with super-sensitive microphone and attractive 2-tone luggage-type case. Net Each..... **$142.46**

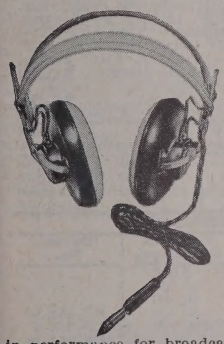

4B10

MODEL 4F10 HIGH FIDELITY TAPE RECORDIO (NOT ILL.)

High fidelity with full 8 watts of output makes this Wilcox-Gay Recordio ideal for the discriminating audiophile. This new tape recorder provides all the quality of the stereophonic model above plus the additional feature of a high quality push-pull amplifier that provides 8 watts of undistorted output. Also has three extension speaker jacks. Otherwise all features as in the two models above.

Wilcox-Gay Recordio Model 4F10—Complete with super-sensitive microphone and 2-tone luggage-type case. Net Each..... **$157.46**

PERMOFLUX DYNAMIC HEADPHONES, TELEPHONE PICKUP



Permoflux Dynamic Headphones employ actual moving coil type motor assemblies produced under conditions rivaling those used in finest watchmaking traditions. Design and construction tolerances are maintained that were unbelievable in the electronic art only a short time ago.

Frequency response obtained is capable of reproducing the full orchestral scale within range of average human hearing.

Combined with the above outstanding performance characteristics are: compact design, sealed assembly, lack of weight, high resistance to severe impact, ability to withstand high humidity extremes in temperature and high altitudes.

Patented acoustical damping provides a flat frequency response from 20 to 4500 cps in standard models and 20 through 10,000 cps in Super High Fidelity models. Unparalleled in performance for broadcast studio, aviation, laboratory and audiometer work. **P.D.R. Series standard and high fidelity dynamic earphones** are used in these headphone sets. They use Model PHA-6 Headband and include a 5-ft. cord. All headphones listed include Model 1505 Ear Cushions.

BINAURAL MODELS

The two standard and two deluxe models listed are available wired for binaural use. Add prefix "B-" and add to Net..... **$5.00**

PERMOFLUX STANDARD DYNAMIC HEADPHONES

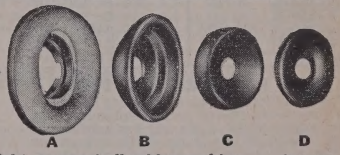
Permo. Model	Ohms Imp.	Ear-phone	Imp./Phone	Shipping Weight	Net Each
DHS-1B	25	PDR-1	12	1¼ lbs.	$35.00
DHS-15B	600	PDR-3	300	1¼ lbs.	40.00

PERMOFLUX HIGH FIDELITY DYNAMIC HEADPHONES

Permo. Model	Ohms Imp.	Ear-phone	Imp./Phone	Shipping Weight	Net Each
DHS-28B	25	PDR-10	12	1¼ lbs.	$40.00
DHS-17B	600	PDR-8	300	1¼ lbs.	45.00

EAR CUSHIONS

Model 1505—(A). For aircraft where comfort and noise exclusion are mandatory. Rubber backed with kapok filling and chamois face. Pair, Net.. **$6.00**


A B C D

Model 1537—(B). Light, compact all rubber cushion, small in size. Fungus and mildew proofed. Pair, Net Price. **$6.00**

Model 1545—(C). Soft sponge rubber face, solid rubber back section. Used extensively by Armed Forces. Pair, Net **$4.00**

Model 1250—(D). Molded from ¾" black rubber. Cushion of air back of ear socket insures good acoustical seal and affords comfort to wearer. Pair, Net Price..... **$2.00**

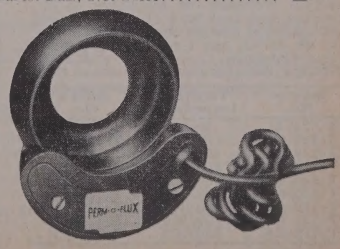
TELEPHONE PICKUP

ATTACHES TO ANY TELEPHONE TO PICK UP BOTH SIDES OF A TELEPHONE CONVERSATION

Businessmen, salesmen, engineers, government agents—anyone whose time is precious can use the new Permoflux Telephone Pickup to save valuable minutes (and hours) in important long distance telephone conversations. Small, compact, easy to use, this handy device attaches to any telephone ear-piece to pick up both sides of a telephone conversation. Don't trust to memory when it comes to long, involved sales lists or detailed important talks; use a Permoflux Telephone Pickup to help in recording these conversations.

Features: Picks up both sides of a phone conversation. Output of pickup may be fed to high impedance input of any type recorder—tape, disc or wire. No electrical connection to phone is necessary. One type fits all telephones. Higher output than obtainable with other types used under phone box. No fading or blasting—high articulation and intelligibility. Shpg. Wt. ½ lb.

Model M-53-A Telephone Pickup—Net Each..... **$10.50**



697-55A

Intercom, Pads and Networks

VOCATRON PORTABLE TWO-WAY SYSTEM MODEL CC-3

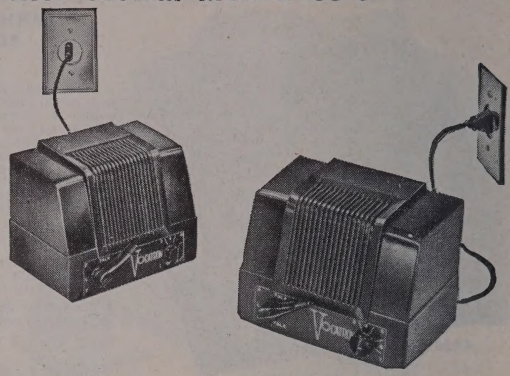
VOCATRON is a simplified, self-contained loud-speaking intercommunicator which uses the regular electric power and lighting circuits as its transmission medium. It operates on the so-called "carrier current" or "carrier wave" principle, placing a small high frequency signal voltage (the "carrier") on the 110 volt 60 cycle power line, which thus carries the sound from one VOCATRON to another. Frequency discriminating circuits in the receiver unit allow it to separate the carrier from the power voltage and reproduce the transmitted sound through its loudspeaker. A special and very effective Noise Suppressor has been incorporated which blanks out all extraneous noises while the units are in "standby" or listen position. All units which are turned on in the system hear the call of any station transmitting in the system. No need to call each individual unit separately to locate an individual. All units in the system are "Master" units. All units can originate calls.

The VOCATRON solves many communication problems. Just plug in and talk, no wiring whatsoever to install. 4-tube static eliminating circuit. Exceptional tone quality and voice reproduction, can serve as a small PA system. Uses no more electricity than a light bulb. VOCATRON plugs into any standard 110 volt electrical outlet, AC or DC, standard in any building. It will not bypass main power transformers, and best results are obtained when the two units are on the same fused circuit.

VOCATRON is immediately adaptable for houses, schools, plants, etc. It is thoroughly reliable, incorporating a permanent-talk position. It brings offices together, completely eliminating the bother of installing wires, and eliminates tying up switchboards with intra-company calls.

Three or more units may be used on the same circuit. The cabinets are of handsome, durable walnut or gray plastic finish. White or black extra. **Size:** 7⅜″ x 5⅝″ x 5½″. **Weight:** 4 lbs. **Power Supply:** 105-120 volts, 25-60 cycles AC or DC. **Frequency:** 175 kc. **AF Output:** 1.5 watts. **Power Consumption:** 23 watts.

4″ speaker-microphone. 3-position switch: (1) Stand by (listen); (2) push and talk; (3) fixed talk position. Volume control combined with on-off switch.
Model CC-3—Per pair, List Price..... **$89.95**
Additional Units—List Price..... **$44.98**



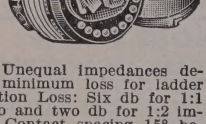
LONG RANGE MODEL CC-45

For 105-125 volt outlets supplied by 220 volt split phase or three phase power transformer using separate meter or fuse boxes or for long range transmission over heavily loaded electric lines. (Ideal for building to building operation where separate meters are involved or in large buildings where outlets are supplied by separate fuse boxes). **$99.50**
Model CC-45—Two Units. List Price..... **$49.75**
Additional Units—List Price..... **$49.75**

Model VC-HS1 (35W)—Filter for eliminating occasional noise from AC-DC radios, shavers, battery chargers, etc. List.. **$3.95**
Model VC-HS2 (500W)—For eliminating frying noise caused by old style electric typewriters. List Price..... **$6.95**
Model VC-HS3 (250W)—List Price..... **$7.95**

DAVEN PADS AND NETWORKS

LADDER NETWORK 350 SERIES



Twenty Steps, 2.0 decibel per step, infinite. Attenuation tapered. Accuracy of resistance: ±5%. Unequal impedances designed having minimum loss for ladder network. Insertion Loss: Six db for 1:1 impedance ratio and two db for 1:2 impedance ratio. Contact spacing 15° between centers. Dimensions: 1¾″ dia., 1¾″ back of panel depth. Mounts in single hole to clear ⅜″ bushing. Net wt. 6 oz. **$8.50**
Any type listed below. Net Each..
Detents (indexing device) for above **50c**

Daven No.	Term. Imped.	Daven No.	Term. Imped.
LA-350-A	30/30	LA-350-F	500/500
LA-350-B	50/50	LA-350-G	600/600
LA-350-C	125/125	LA-350-AH	30/30
LA-350-D	200/200	LA-350-BJ	50/100
LA-350-E	250/250	LA-350-EF	250/500

"TEE" NETWORK 320 SERIES

The T-320 attenuator is a twenty step "T" type network offered for general sound control applications. This unit has zero initial loss, constant impedance both in and out at all settings of the control and a quiet, rugged, self-cleaning switch for low level control. The series T-320 is offered as a main gain control. The series T-321 is supplied with a taper on the last three steps before cut-off and is an ideal twenty-step mixing control. 2.0 decibel per step, infinite. T-320 attenuator linear, T-321 tapered. Accuracy of resistance ±5%. Insertion loss: Zero for 1:1 impedance ratio and minimum loss for unequal impedance. Net wt. 12 oz. Any type listed below. Net Each..... **$17.50**
Detents (indexing device) for above **50c**

Daven No.	Terminal Impedance	Daven No.
T-320-A	30/30	T-321-A
T-320-B	50/50	T-321-B
T-320-C	125/125	T-321-C
T-320-D	200/200	T-321-D
T-320-E	250/250	T-321-E
T-320-F	500/500	T-321-F
T-320-G	600/600	T-321-G
T-320-DF	200/500	T-321-DF
T-320-EF	250/500	T-321-EF

"TEE" NETWORK 250 SERIES

Accuracy of resistance: ±5%. Insertion Loss: Zero loss for 1:1 impedance ratio and minimum loss for unequal impedance. Contact spacing: 15° between centers. Dimensions: 2¼″ dia., 1¾″ behind panel. Rear of panel mounting. Single hole to clear ⅜″ bushing. 2.0 decibel per step. Type 250 infinite, Type 251 20. Both types 10 steps. Attenuation linear. Any type listed below. Net Each..... **$13.00**
Detents (indexing device) for above **50c**

Daven Series	Decibel per Step	Characteristic	Decibel Total
T-250	2.0	Linear	Infinite
T-251	2.0	Linear	20
T-252	1.5	Linear	15
T-253	1.0	Linear	10

Daven No.	Terminal Impedance	Daven No.
T-250-A	30/30	T-251-A
T-250-B	50/50	T-251-B
T-250-C	125/125	T-251-C
T-250-D	200/200	T-251-D
T-250-E	250/250	T-251-E
T-250-F	500/500	T-251-F
T-250-G	600/600	T-251-G
T-250-DF	200/500	T-251-DF
T-250-EF	250/500	T-251-EF
T-252-A	30/30	T-253-A
T-252-B	50/50	T-253-B
T-252-C	125/125	T-253-C
T-252-D	200/200	T-253-D
T-252-E	250/250	T-253-E
T-252-F	500/500	T-253-F
T-252-G	600/600	T-253-G

"TEE" NETWORK 330 SERIES

The T-330 attenuator is designed for use as either a mixing or master gain control in broadcasting speech input equipment, sound recording studios and sound projection systems. 30 steps of 1.5 decibel per step, infinite. Type T-330 tapered, T-331 linear. Accuracy of resistance: ±5%. Any type listed below. Net Each..... **$20.50**
Detents (indexing device) for above **50c**

T-330-A	30/30	T-331-A
T-330-B	50/50	T-331-B
T-330-C	125/125	T-331-C
T-330-D	200/200	T-331-D
T-330-E	250/250	T-331-E
T-330-F	500/500	T-331-F
T-330-G	600/600	T-331-G
T-330-DF	200/500	T-331-DF
T-330-EF	250/500	T-331-EF

POTENTIOMETERS

Carbon type resistors. Accuracy, ±5%. Rear of panel mounting. Special impedance and attenuation other than those shown may be secured at no additional cost. For series 350, single hole mounting to clear ⅜″ bushing. Permits panels up to ¼″ in thickness. For series 250, 2 holes mounting, tapped for 8-32 machine screws, 1½″ apart on a horizontal center line. Contact spacing, 15 degrees between centers. **Dimensions:** Type CP-250—Diameter, 2¼″; Depth, 1¾″; D, 1⅛″. Type CP-350—Diameter, 1¾″; Depth, 1¾″; D, 1⅛″. Without detents. **$9.50**
Type CP-250—Net Each..... **$8.50**
Type CP-350—Net Each..... **$8.50**
Detents (indexing device) for above.. **50c**

Daven Series	Decibel per Step	Characteristic	Decibel Total
CP-250	2.0	Linear	Infinite
CP-251	1.0	Linear	Infinite
CP-350	2.0	Linear	Infinite
CP-351	1.0	Linear	Infinite

SERIES 250

Daven No.	Terminal Impedance	Daven No.
CP-250-L	5,000	.....
CP-250-M	10,000	.....
CP-250-P	20,000	.....
CP-250-S	50,000	CP-251-S
CP-250-T	100,000	CP-251-T
CP-250-W	200,000	CP-251-W
CP-250-X	250,000	CP-251-X
CP-250-Y	500,000	CP-251-Y
CP-250-Z	1,000,000	CP-251-Z

SERIES 350

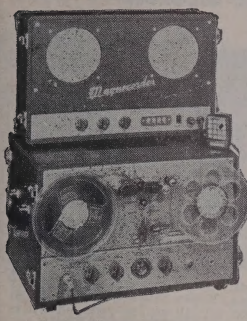
CP-350-L	5,000	.....
CP-350-M	10,000	.....
CP-350-P	20,000	.....
CP-350-S	50,000	CP-351-S
CP-350-T	100,000	CP-351-T
CP-350-W	200,000	CP-351-W
CP-350-X	250,000	CP-351-X
CP-350-Y	500,000	CP-351-Y
CP-350-Z	1,000,000	CP-351-Z

WE CARRY THE COMPLETE LINE OF DAVEN PADS AND NETWORKS. WRITE FOR INFORMATION AND PRICES ON THE 255 SERIES OR ANY OTHERS YOU MAY REQUIRE.

688X-55A

Magnecord Tape Recorders

NEW SERIES M30 TAPE RECORDERS



MODEL M34

The new Magnecord M-30 Series, precision built to the same high standards as the famous Magnecord broadcast equipment, will be the choice of concert artists, conductors, and discerning owners of high fidelity systems. Magnecord units are well known for their ability to record the full range of audible sounds, and the M30 is a welcome low cost addition to the Magnecord line. The M30 is housed in an attractive maroon leatherette portable case designed for handy portability, yet styled to blend with many styles of decor. The front panels of the M30 are finished in distinctive rose gold, and the controls and accessories are finished in attractive contrasting colors. The units may be removed from the cases for permanent custom installation or for rack mounting. The M30 is equipped with two high impedance inputs: Microphone and Phonograph or Tuner. A monitoring jack permits the use of high fidelity earphones. Two high impedance outputs (high and low level) permit perfect interconnection with any high fidelity system. The M30 operates at 7½ or 3¾ inches per second. An oversize four-pole motor gives excellent speed regulation and permits operation with unusually low flutter and wow. An eye-tube indicator permits accurate control of recording volume. Complete with AC cord and blank 7-inch reel.

Model M30—Portable Tape Recorder..... **$299.00**

SPECIFICATIONS

Frequency Response: Plus or minus 2 db, 50 to over 10,000 cycles at 7½"/sec.; plus or minus 2 db, 50 to over 5,000 cycles at 3¾"/sec. **Flutter and Wow:** Less than 0.3% RMS. **Inputs:** High impedance microphone, high impedance phono or tuner. **Output:** High impedance—high and low level; monitor jack for earphones. **Track Width:** Half track standard, full track optional. **Case:** Maroon leatherette, fully protected, heavy wood construction. **Weight:** 35 pounds. **Dimensions:** (With cover) 17¾ inches wide, 11¼ inches high, 13¼ inches deep.

MODEL M33 TAPE RECORDER

The new Magnecord M33 Tape Recorder combines both recording and playback in one unit. It is basically the same as the M30 described above, but in addition has a 6 by 9 inch PM speaker. It features a built-in output stage which, with the integral speaker, permits on-the-spot playback. The output stage delivers low distortion power. A high impedance, high fidelity output is provided for connection with any high fidelity system. A spectrum-compensated tone control permits response adjustment for the loud speaker without affecting the high fidelity output. A well designed ceramic microphone is supplied with the player.

Model M33—Portable Tape Recorder..... **$329.00**

THE EDUCATOR, MODEL M34 RECORDER

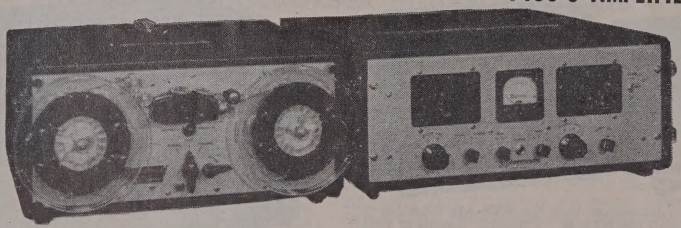
The new Educator Tape Recorder is intended for use in schools, clubs and other places where greater power (10 watts) is required of a speaker. The M34 is the M30 described above, plus a 10-watt amplifier-speaker built into the detachable rear cover. The amplifier-speaker system has its own set of bass and treble controls and two wide range speakers. The amplifier-speaker system may be used as a public address system with microphone, radio, phonograph or any other sound source. An output terminal strip permits the power amplifier to be used with external speakers or earphones.

Model M34—
Portable Tape Recorder..... **$429.00**

PT63 SERIES

PT63 BASIC RECORDER

PT63-J AMPLIFIER



A basic recording mechanism that offers the advantage of monitoring from the tape while recording. Uses 3 separate heads—Erase, Record and Playback. All heads contained in a single housing, are individually aligned and can be replaced as required. Record and Reproduce heads are both triple shielded to minimize hum and cross-talk. High forward speed for cueing. **Frequency Response:** Flat from 50-15,000 cps. ±2 db at 15" per second tape speed. Flat 50-10,000 cps. ±2 db at 7½" per second, when proper equalizer is used. **Recording Speeds:** 15" or 7½" per second interchangeable. Both quick-change capstans supplied. **Rewind Speed:** 1200' (full 7" reel) rewound in approx. 40 seconds. **Flutter:** Maximum, 0.3%. **Bias Oscillator:** Built-in. Uses single 12AU7 tube. Power supplied from PT63 series amplifiers. **Panel:** 7" x 17" Magnecord Gray Hammered finish.

Model PT63-AH—With case and hi-speed forward... **$389.00**

Model PT63-AHX—Same as above, but less case.... **$369.00**

Designed for use with PT-63 basic recording units. Portable single channel amplifier containing separate record and playback amplifiers plus 10 watts of audio which will drive a large external speaker. Switch for equalization of 7½" and 15" per second tape speeds. Another switch is built in the control panel so that the record, playback or bias readings may be taken from the same 3" VU meter. All other basic specifications are the same as the PT6-J. Panel size 19" wide x 7" high and may be directly rack mounted when removed from case.

Model PT63-J—With black grain leatherette case... **$369.00**

Model PT63-JX—Same as above, less case..... **$349.00**

THREE-SPEED MODELS (15, 7½, 3¾)

Specify **PT63-A2H** or **PT63-A2HX** and add to Price... **$50.00**
Available with half-track Erase and Record heads at same price.
Solenoid actuated pressure roller for remote control, Add **$60.00**

HIGH LEVEL MIXING AMPLIFIER FOR PT63-AH RECORDER

PT63-P MIXING AMPLIFIER

Three-channel, high level mixing amplifier with separate record and playback amplifiers for use with PT63 Tape Recorders. Inputs are provided for three low impedance 30/50 or 250-ohm microphones with separate preamplifiers for each with high level mixing. Also bridging input. Output: Zero level at 600 ohms, balanced, and 10 watts of audio for monitor speaker or to drive external speaker. Special selector switch selects equalization for 7½" or 15"/sec. tape speeds. Switch to read bias record or playback on meter. VU meter has easily read 4-inch illuminated dial. Completely mounted on single chassis for easy mounting in rack, console or portable cases. Dimensions 7" x 19". Interconnecting cables are attached. Attractive gray hammerloid finish. Complete with all tubes, ready to install.

Model PT63-PX—Three-Channel High Level Mixing Amplifier without case. Net Each..... **$475.00**

Model PT63-P—Three-Channel High Level Mixing Amplifier. Complete with case. Net Each..... **$495.00**

MAGNECORD ACCESSORIES

PT6-D3 Duplicating Amplifier—Makes 3 copies of master tape. Has one input, three outputs and calibrating circuit..... **$365.00**

PT6-EL Continuous Loop—Eliminates rewind. Holds up to 600 feet (15 minutes at 7½"/second) on endless tape loop. Permits play of commercials and music without rewinding. Use with PT6-AX and PT6 amplifiers. 19" wide, 10½" for rack mount or PC-MA portable case. Gray finish. With bolts. **$64.50**

91X279 Voice Operated Relay—Bridges between PT6-J and PT6-AH units, adaptable to other units. Starts and stops recorder when sound source begins and ceases. Six-prong male Jones plug and connector cable, "threshold" and "Over-ride" switches..... **$50.00**

PT6-S Portable Power Supply—117 volts, 60 cycle from 12 volts DC self-contained airplane-type battery. Includes battery, genemotor, frequency meter and control. Operates PT6 and PT63 equipment..... **$264.00**

411-55A

Magnecord Tape Recorders

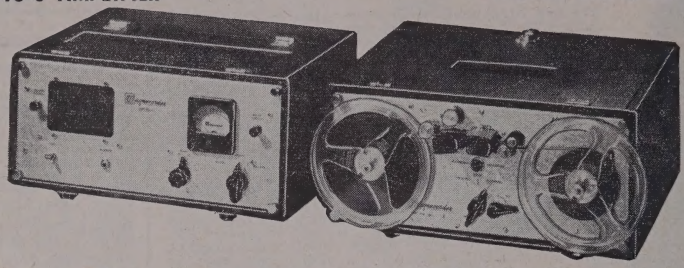
PT6 SERIES

PT6-J AMPLIFIER

Provides exceptionally clean, top quality audio. Single low impedance mike input with gain control, high level terminal for tuner or amplifier input, a 5" PM monitor speaker, zero-level output terminal for external amplifier or line and a 10 watt audio amplifier with terminal strip for an external speaker are included in the amplifier. A VU meter is provided for continuous volume level indications. A 3-position switch selects either erase record, playback or public address as is desired. **Inputs:** one low level, low-Z for microphone; high level input, 100,000 ohms unbalanced. **Output:** line output, +8 dbm at 600 ohms balanced from 2 binding posts. **Power Output:** 10 watts at 3.2 or 16 ohms. **Frequency Response:** ±2 db from 50-15,000 cps at 15"/second; ±2 db from 50-7000 cps at 7½"/second when recording equalizer is used. **Signal-to-Noise:** Wide band noise including tape, 47 db. **Switching:** 3-position switch for "Record", "Listen" or "Amplifier" operation. Inserts proper characteristics for record or playback and removes all equalization for use as a 10 watt audio or P.A. amplifier. **Dimensions:** 18" long, 8" wide, 12¾" deep. In Black leatherette case. 117 volts, 60 cps.

Magnecord Model PT6-J Amplifier—Including all tubes and cables..... **$260.00**

Model PT6-JX—Same as above, less case..... **$240.00**



PT6-AH BASIC RECORDER

A basic tape recording mechanism designed to produce excellent quality magnetic tape recordings. For use where requirements are low distortion and wide-band reproduction. Interchangeable capstans and pressure rollers are supplied for quick shift from ½-hour capacity at 7½" per second to 15 minute capacity at 15" per second. No tools needed. **Rewind Speed:** Full 7" reel (1200-ft.) in approx. 40 seconds. High speed forward for fast cueing in. **Frequency Response:** From below 50 cps to 15kc ±2 db at 15"/second; 50 cps to 7kc ±2 db at 7½"/second when properly equalized. **Motors:** Synchronous 117 volts, 60 cps AC drive; shaded pole motor for rewind. **Flutter:** Maximum, 0.3%. **Bias Oscillator:** Built-in. Uses single 12AU7 tube. Power supplied from amplifier. In black grain leatherette case, 18" long, 8" wide, 15½" deep. **Power:** 117 volts 60 cps, single phase. 70 watts.

Magnecord Model PT6-AH—No cables..... **$319.00**

Equipped with **half track** erase and record heads. Same price.

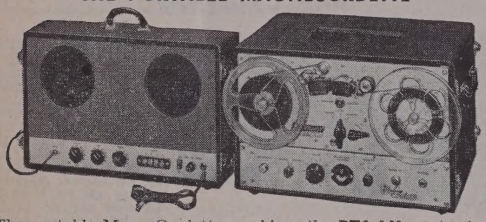
Model PT6-AHX—Same as above, less case..... **$299.00**

3 Speeds—PT6 recorders also available for three speed operation (15-7½-3¾). Add **$30.00** to above prices and specify **PT6-A2H** or **PT6-A2HX.** 3¾ equalizer 91-S-133..... **$21.00**

Solenoid actuated pressure roller for remote control, add **50.00**

SPECIAL PT6 COMBINATIONS

THE PORTABLE MAGNECORDETTE



The portable MagneCordette combines the **PT6-AH** mechanical unit (described above) and the **PT6-G** "Custom" amplifier with the new **PT6-K** amplifier-speaker combination. The **PT-6G** is described under MagneCordette. The **PT6-K** 10-watt power amplifier with speakers in a portable carrying case meets all requirements of high fidelity equipment and was designed for use with the MagneCordette. The portable amplifier is mounted in a carrying case connected to the rear of the MagneCordette.

Two wide range speakers are mounted on the amplifier with the case acting as a baffle. All controls and connections of the amplifier-speaker combination are readily accessible on the front of the unit, as well as a 110 volt outlet. This unit may be used as a P.A. system.

SPECIFICATIONS, PT6-K AMPLIFIER

Frequency Response: ±2 db from 30 cps to 15kc. **Bass Control:** +16 db to −12 db at 50 cps. **Treble Control:** +12 db to −20 db at 10kc. **Input:** 0.3 volts. High impedance, unbalanced. **Max. Power Output:** 10 watts. **Output Impedance:** 4, 8 or 16 ohms.

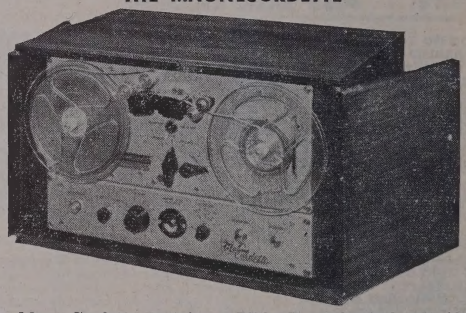
Distortion: Less than 1% at 10 watts. **Signal-to-Noise:** 65 db.

PT6-GAHP—Portable Magnecordette..... **$495.00**

Case only, less speakers and amplifier..... **$ 48.00**

Amplifier, speakers and case..... **160.00**

THE MAGNECORDETTE



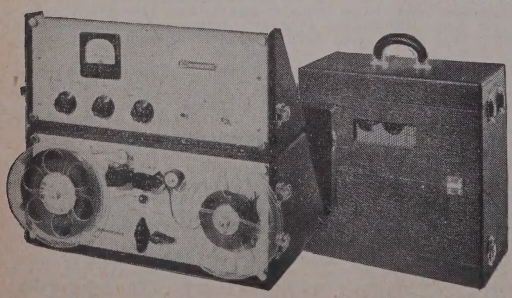
The MagneCordette contains a PT6-AH mechanical unit (described above) and **Model PT6-G** "Custom" amplifier acting as both a recording amplifier and as a playback preamplifier with your present hi-fi equipment. For recording any live source, the custom amplifier provides a hi-Z mike input. **Amplifier Controls:** Magic Eye volume indicator, gain control, record/playback switch, equalizer-speed selector. Also contains earphone input for monitoring during both record and playback. **Cabinet:** May be ordered in either blonde or dark mahogany finish. **Frequency Response:** At 15"/second, from below 50 cycles to 15 kc, ±2 db; at 7½"/second, 50 cycles to over 10 kc, ±2 db. **Power Requirements:** 117 volts, 60 cycle single phase, 85 watts. **Dimensions:** 12¾" long, 20¾" wide, 15" deep.

PT6-GAH MAGNECORDETTE— Includes Cabinet..... **$399.00**

Cabinet Only..... **$54.00**

PT6-G—"Custom" Amplifier only..... **79.50**

PT6-VAH VOYAGER



This new unit consists of the standard PT6-AHX recorder and a new, small, lightweight amplifier, both in a single carrying case. The new amplifier has two inputs—a microphone input, balanced, with 30 ohm impedance (easily converted to 200 ohm), and a high impedance unbalanced input. The output is 600 ohm, balanced or unbalanced, with a maximum output of 6 dbm. An earphone monitor jack on the front panel is connected during both record and playback.

Frequency response of the Voyager with tape is ±2 db from 50 to 15,000 cycles per second at 15" per second tape speed. The portable carrying case is designed to have the amplifier and recorder mechanism back-to-back when closed for transport. Interconnecting cables may be left connected.

The case has been made large enough to provide ample storage space for tape and parts.

The unit weighs 42 pounds. Case dimensions are 19" x 7¾" x 17¾".

Model PT6-VAH, VOYAGER..... **$485.00**

Model PT6-VX—Amplifier only, less case..... **$175.00**

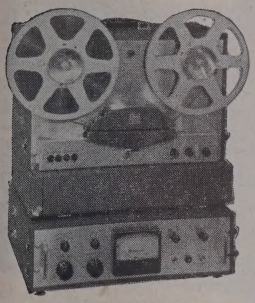
Model PT6-AHX—Recording Mech., less case..... **299.00**

91C659—Case only for PT6-V..... **35.00**

411X-54A

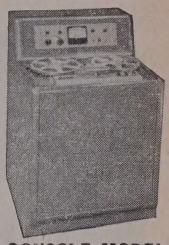
Magnecord Tape Recorders

PROFESSIONAL PORTABLE AND CONSOLE TAPE RECORDERS M81 AND M90



PORTABLE MODEL

Magnecord's two new series of Tape Recorders represent years of research and experimentation and incorporate the latest advance in tape recording techniques. Both series are available in portable, rack and console models. They are intended for use where the highest quality recording and reproduction in accordance to NARTB standards is required. Magnecord's Unit Construction technique makes possible many identical features on both series. Specifications common to both series include: **Tape Speed:** 7½" and 15"/sec., with 3¾" and 7½"/sec. model available on special order. **Starting Time:** Less than 0.1 second. **Stopping Time:** Less than 2 inches of tape at 15"/sec. **Timing Accuracy:** ±3 seconds in 30 minutes. **Rewind and High Forward Speed:** 10-inch, 2400-ft. reel in less than 55 seconds. **Monitoring:** Phone jack on panel for monitoring. **Dimensions: Panel:** Standard 19-inch rack. **Amplifier:** 19" x 5¼". **Transport:** 19" x 12¼". **Power Supply:** Integral with amplifier.



CONSOLE MODEL

MAGNECORD M81 SERIES

The lower priced of the two series, this group is designed for the group that needs an all-purpose professional recorder but must reduce operating overhead. It is designed to replace portable equipment in studio applications where high quality tape recording is a must. It features slot loading for easy, fast operation. Controls are located for high speed cueing and fluff-free programming. Fail-safe operation at all times, even when in high forward or reverse. Choice of microphone inputs with plug-in transformers. Every function metered. **Frequency Response:** 15"/sec., ±2 db, 40-15,000 cps; 7½"/sec., ±2 db, 10,000 cps; 3¾"/sec., ±2 db, 50-7500 cps. **Flutter and Wow:** Less than .15% RMS max. at 15"/sec., .2% RMS max. at 7½"/sec., .3% RMS max. at 3¾"/sec. **Signal-to-Noise:** 55 db at 7½" and 15"/sec. **Power:** 110-120 volts, 60 cycle AC, 290 watts.

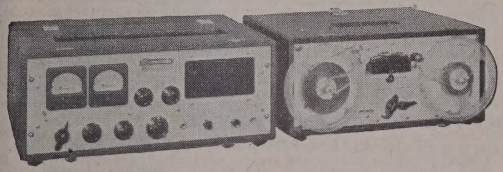
Model M81-ACC—Console, 28" x 28" x 41" high **$975.00**
Model M81-AC—Portable **$870.00**
Model M81-ACX—Portable, less case **790.00**
Model M-81C—Amplifier **245.00**
Model M81-CX—Amplifier, less case **225.00**
Model M81-A—Recording Mechanism **635.00**
Model M81-AX—Recording Mechanism, less case **575.00**

DELUXE MAGNECORD MODEL M90

Meets the most exacting professional requirements. Two-speed direct tape drive system with outboard capstan bearing. Differential band brakes eliminate danger of thrown loops, grabbing or chattering. Interchangeable head assemblies provide full track, half track or instrumentation. Separate record-reproduce amplifiers. Precision made heads provide extended range to 20,000 cps. **Flutter and Wow:** Less than 0.1% max. at 15"/sec., 0.15% max. at 7½"/sec., 0.3% max. at 3¾"/sec. **Frequency Response:** 30-15,000 cps ±2 db at 15"/sec., 40-12,000 cps ±2 db at 7½"/sec., 30-15,000 cps ±4 db at 3¾"/sec. **Signal-to-Noise:** 58 db at 7½"/sec. or 15"/sec., 55 db for half track. 110-120 volts, 60 cy. AC. 290 watts.

Model M90-ACC—Console **$1450.00**
Model M90-AC—Portable **$1365.00**
Model M90-ACX—Portable less case **1285.00**
Model M90-A—Recording Mechanism **995.00**
Model M90-AX—Recording Mechanism less case **935.00**
Model M90-C—Amplifier **380.00**
Model M90-CX—Amplifier, less case **360.00**

BINAURAL MAGNECORDER PT6-BN AND BAH

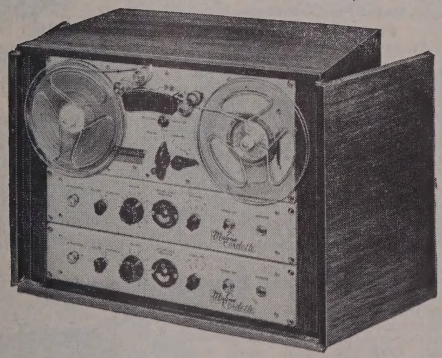


For new 3rd dimensional sound. Made with lo-Z mikes fed into the PT6-BN amplifier and taped simultaneously with dual half-track Binaural heads on standard ¼" magnetic tape.

Binaural Amplifier Model PT6-BN—Frequency Response ±2 db, 50-15,000 cps, tape speed, 15"/sec.; ±2 db, 50-10,000 cps, 7½"/sec. Dual bridging inputs. Switching: "Record-Listen"; "7½"-15"". Outputs: line, +4DBM at 600 ohms balance at binding posts; power, 10 watts, 4 or 16 ohms, one output each channel. 6" x 4" monitor speaker. 2-3" VU meters, 2 single controls, one for each channel, 1 master control **$449.00**

Binaural Recording Unit Model PT6-BAH—Speeds 15"/sec. or 7½"/sec. Rewind, 7" reel, 40 seconds. Response (15") below 50 cps to 15 kc±2 db. (7½") 50 cps to 7 kc±2 db with right equalizer Sync. 117v AC motor. shaded pole motor for rewind. Max. flutter 0.3%. Built-in bias osc., 12AU7 ..... **$389.00**
Model PT6-BAHX—Same as above, less case **369.00**

THE BINAURAL MAGNECORDETTE



Features the PT6-BAH binaural mechanical unit and two PT6-G "custom" amplifiers in a handsome blond or mahogany cabinet. The Magnecord Binaural Magnecordette is designed to fit with existing sound systems for the home to give the most realistic reproduction ever experienced.
The PT6-BAH and PT6-G are described elsewhere on these pages.

TECHNICAL SPECIFICATIONS

Recording Speeds: 15 inches/sec. or 7½ inches/sec. Interchangeable (no tools required). **Rewind Speed:** Full 7 inch reel (1200 ft. of tape), rewound in approx. 40 seconds. **Frequency Response:** At 15 inches/sec.: from below 50 cps to 15 kc ±4 db. at 7½ inches/sec. 50 cps to 10kc±2 db. **Motors:** Hysteresis synchronous 117 v 60 cycle AC drive motor. Shaded pole for rewind. **Flutter:** Max. 0.3%. **Input Impedance:** Microphone input: Hi-impedance for crystal or other hi-impedance microphone. Phono input: Hi-impedance designed for any crystal pickup or detector output of tuner: **Output Impedance:** Hi-impedance. May be connected to input of power amplifier, or "phono" input of any radio, high fidelity or P.A. amplifier. **Power Requirements:** 117 v 60 cycle single phase AC 100 watts. PE. **Dimensions:** 12⅜" L. x 20⅜" W. x 15" D.

PT6-BGAH Binaural MagneCordette **$599.00**
Two PT6-6 Custom Amplifiers and Cabinet (with connecting cables) **$250.00**

MAGNECORD ACCESSORIES

PT6-M Auxiliary Spooling Mechanism (10½" x 19" rack panel). For increasing playing time of PT6-R/PT6-AHX combination by factor of 2. Action controlled by PT6-AHX switching when connected to and operated with PT6-R. Does not include empty 10½" NAB reels **$200.00**

PT6-H Rack Panel (8¾" x 19" rack panel). For rack mounting one PT6-AHX. Does not include knurled thumb screws for mounting the PT6-AHX. These come with the PT6-AHX. **$10.00**

93X4 10½" Reel Adapter Kit. Adapts PT6-AH or PT63-AH to accommodate 10½" reels. Complete with metal extension arms, rubber drive belts, reel adapter hubs, collets and knurled knobs, special adjustment bearing for tape alignment.. **$39.00**

3 OR 4 CHANNEL LOW-LEVEL MIXERS

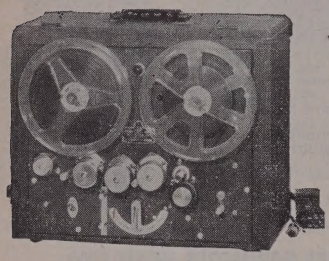
Multi-channel low level mixers for up to four 30/50 ohm low impedance mikes. Use with PT6-J single input amplifiers. 17" long, mounts in amplifier case cover, plugs into mike input. Gain control on amplifier acts as master for all mikes. Uses ladder-type attenuators (2 db per step). Cannon receptacles, plugs. **$89.50**
Type PT6-1M4—Four inputs .....

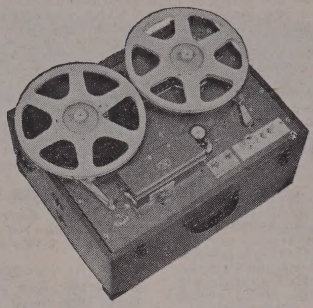
PT6-HT Rack Panel and Throwover Switch. For rack mounting a second PT6-AHX with the PT6-AHX/PT6-R combination and providing selective switching between either PT6-AHX and the PT6-R amplifier for continuous recording. Does not include knurled thumb screws for mounting the PT6-AHX. These come with the PT6-AHX **$49.00**

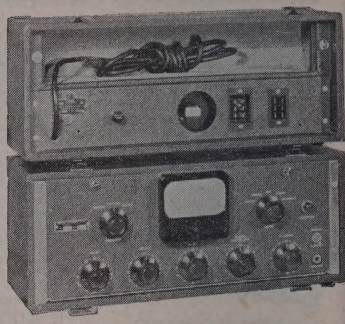
412-55A

Presto Tape Recording Equipment

R-7 RECORDING MECHANISM **R-11 RECORDING MECHANISM** **900-A AND 901-A AMPLIFIERS**







R-7 MECHANISM

This is primarily a portable recorder for remote work. Maximum reel size (except with RA-1 Adapters) is 7". Normally operates at 7½" and 15" per second. Equipped with separate record and reproduce heads providing monitoring directly from the tape during recording. Drive mechanism is the three-motor, consisting of one constant speed motor for the capstan and two torque motors for the reels. This completely eliminates friction take-up clutches and friction brakes. The unit may be instantly switched from fast forward to rewind without damage to tape. Tape tension is fixed and remains constant. Fast speed, 250" per second, rewind and fast forward. **Frequency Response:** 50 to 15,000 cps at 15"/sec., 50 to 10,000 cps at 7½"/sec. Weight, 40 lbs. Dimensions in case, 16" x 11¼" x 14". Complete in case.

Presto Model R-7 Recording Mechanism—Net Ea.. **$425.00**

900-A AMPLIFIER

This amplifier is composed of separate record and reproduce (monitor) amplifiers, on a common chassis, and a separate power supply. It may be used with any Presto recorder and it is supplied for portable use or rack mounting. Included are a three-microphone 250 ohm low level mixer and an illuminated VU meter. The output of the reproduce amplifier is 500 ohms, plus 20 db, maximum. No speakers included.

Presto Model 900-A Amplifier—In case. Net Each.. **$403.00**

901-A AMPLIFIER

Similar to 900-A except that the microphone inputs and mixer are eliminated and replaced by 500 ohm transformer. Net **$365.00**

R-11 RECORDING MECHANISM

Represents a truly modern design both in engineering and in appearance. Composed of the finest materials and engineered to turn out the finest recordings. Available for inclusion in the SR-11 GROUP (includes R-11 and the 901-A Amplifier mounted in CC-4 console cabinet), or for installation in the CS-10 carrying case. Mechanism includes three-head assembly: erase-record-reproduce. Brakes and capstan pressure are solenoid operated. Capstan drive is the Presto CDR-200 and the tape reels are mounted directly on heavy duty torque motors. Loading of the tape consists of little more than dropping it into the opened head cover. DPDT toggle switch for variable control of rewind and fast forward. Response 50-15,000 cps at 15", 50-10,000 cps at 7½". Signal-to-noise 55 db. Flutter at 15", 0.15; at 7½", 0.25.

Presto Model R-11 in CS-10 Case—Net Each..... **$572.00**

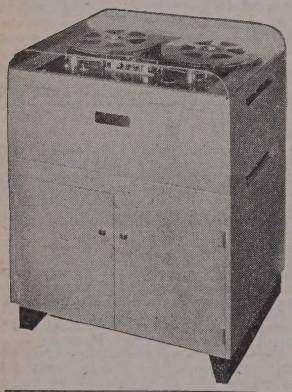
R-11 Chassis alone—Net Each..... **$520.00**

A-920 AMPLIFIER (NOT ILL.)

A more compact unit than 900-A and has somewhat less flexibility. Consists of a mike preamp, reproduce preamp, power amplifier and power supply, all on one chassis. Two small speakers are mounted behind the front panel for playback. Single mike input, 250 ohms. Playback output, 15 ohms, 10 watts. Line output for zero db, 500 ohms. Monitoring by high impedance headphones or separate amplifier is supplied by the reproduce preamp. Available in case or for rack mounting. Same price, either model.

Presto Model A-920 Amplifier—Net Each..... **$324.00**

TAPE REPRODUCING EQUIPMENT FOR CONTINUOUS SERVICE



Presto long playing tape equipment generally consists of either the PB-15-A or PB-17-A tape transport mechanism together with the A-904 amplifier. The panels and location and size of reels are the only points of difference. Presto PB-15-A and PB-17-A mechanisms transport the tape in both directions, playing first the upper and then the lower of the two tracks recorded on the tape. To reverse or re-cycle the tape, contacts on the panel are closed by pieces of aluminum foil affixed to the tape at the desired points. If not affixed, mechanism shuts off after both tracks have been played. Made on 19" panels for rack mounting. CC-4 Console (ill.) is available if desired. Plastic top affords complete view of operations.

PB-17-A TAPE REPRODUCING MECHANISM

Constructed on duralumin panel, accommodates reels to 14" in diam. Normal speed, 3¾" per second. **CDR-300** capstan drive centrally located, with a half-track head mounted on each side of the capstan. Automatically reversible. Complete tape cycle is 8 hours, after which it may be recycled or will automatically stop. Frequency response is uniform from 50 to 8000 cps. Dynamic range, 45 db. Instantaneous speed variation, 0.35%. Power required, 115 volts, 60 cycles, 150 watts. 19" x 24½". Weight, 95 lbs.

Presto Model PB-17-A Mechanism—Net Each..... **$650.00**

PB-15-A TAPE REPRODUCING MECHANISM

Performance and functioning of this model is identical to that of the PB-17-A except that its tape capacity is 2400 ft. (10½" reel). Playing cycle 4 hours. Panel 19" x 14". Weight, 90 lbs.

Presto Model PB-15-A Mechanism—Net Each..... **$650.00**

A-904 PREAMPLIFIER

Designed specifically for use with PB-15-A and PB-17-A. Raises the output from the heads to a maximum of +10 db. The response of the system is flat between 50 and 8000 cps. Output impedance 500 ohms. 19" x 3½". Weight, 20 lbs.

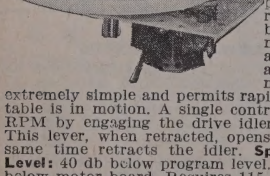
Presto Model A-904 Preamplifier—Net Each..... **$135.00**

CC-4 CONSOLE

As illustrated. For use with PB-17-A when this type of mounting is preferred. Plastic top protects the mechanism from dirt, yet affords a complete view of all parts.

Presto Model CC-4 Console Cabinet—Net Each.... **$180.00**

15-T THREE-SPEED TURNTABLE

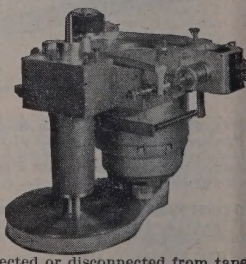


Successor to type 15-G, this model employs the same 12" heavy cast aluminum turntable, accurately machined and dynamically balanced, used in the best professional models. A precision rim-drive mechanism, powered by a quiet, heavy-duty four pole motor, provides accurate timing at all speeds and holds flutter and noise to an absolute minimum. Operation of the T-15 is extremely simple and permits rapid change of speeds, even while table is in motion. A single control lever selects 78, 45 or 33⅓ RPM by engaging the drive idler against a 3-step drive shaft. This lever, when retracted, opens the motor switch and at the same time retracts the idler. **Speed Accuracy:** 0.25%. **Noise Level:** 40 db below program level. 13¹¹⁄₁₆" deep, 11⅞" wide, 3⁵⁄₁₆" below motor board. Requires 115 v., 60 cps, 48 watts. Shipping Weight, 13 lbs.

Presto Model T-15 Turntable—Net Each..... **$53.50**

Wooden cabinet to house Model T-15—Net Each..... **$16.00**

CDR-200/300 CAPSTAN DRIVE UNIT



Included in all current Presto mechanisms except R-7 and available separately for replacement. **CDR-200,** dual speed motor; **CDR-300,** single speed motor, 3¾" speed only. A sturdy aluminum casting on which is mounted motor, capstan and flywheel, pressure pulley and pressure solenoid. The entire assembly is mounted to the underside of the complete tape mechanism by six machine screws. Motor connected to flywheel by seamless woven belt, giving positive and very quiet drive. The assembly has been prechecked and timed for correct speed. May be quickly connected or disconnected from tape mechanism.

Presto Model CDR-200 or CDR-300 Drive Unit—Net Each..... **$211.00**

Recorder, Changers, Cartridges

MASCO MODEL RK6 THREE SPEED DISC RECORDER

Built to professional standards. Records directly from microphone radio, tape or wire recorder, or from another phonograph. Automatic recording equalization for each speed, supplied by Speed Change switch. Electronic "eye" tube permits accurate control of recording volume level. Adjustable cutting head. Built-in 5" x 7" elliptical speaker. Output jack for external speaker. Recording from microphone and radio, phono or tape recorder may be independent or mixed. Independent selection of Recording, Playback or Public Address, without interaction. Plays back or records microgroove (LP-45 or 33⅓ rpm) or standard (78 rpm) recordings. Recordings made at 160 lines per inch. Attractively styled and covered in brown and tan leatherette. Entirely self-contained in two-piece plywood carrying case. Records on discs up to 10" in diameter for 15 minutes recording time at 33⅓ rpm. One pickup with tilting-type cartridge for standard or LP playback. Available with AM radio built-in (Model RK-6R). Recordings can be made from built-in radio or unit simply used for listening.

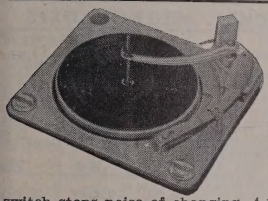
SPECIFICATIONS

Power Output: 3 watts at less than 5% distortion. **Peak Power:** 5 watts. **Overall Gain:** Mike, 115 db; radio-phono, 75 db. **Hum Level:** 60 db below full output. **Inputs:** 1 mike, 1 radio-phono. **Outputs:** For external speaker or built-in speaker. **Controls:** Master Gain, Tone, Function Selector Switch (Record-Playback-PA), Master Power Switch, Motor On-Off Switch, Speed Change Switch. **Tubes:** 2-6SL7GT, 6V6GT, 6U5, 6X5GT. **Power Consumption:** 75 watts including motor. **Operating Voltage:** 117 v., 60 cps. **Dimensions:** 16" wide x 15¾" deep x 9⅞" high.

Masco Model RK-6—Includes crystal cutting head and tilt-type dual cartridge with replaceable styli. Shpg. Wt., 34 lbs. Net..... **$112.50**

Masco Model RK-6R—Same as above, but with built-in AM tuner. Shpg. Wt., 35 lbs. Net Each..... **$136.50**

COLLARO CHANGERS AND PLAYER



MODEL RC-54 CHANGER

High fidelity record changer that plays 7, 10 and 12-inch records intermixed at 33, 45 or 78 rpm. Automatically shuts off after last record is played. Weighted, rim-drive turntable is ball bearing mounted. Jam proof ball bearing mounted tone arm with two plug-in shells. Muting switch stops noise of changing. 4-pole motor is fan cooled, fully hum shielded, has self-aligning ollite bearings. 14¾" x 12¼", extends 2½" below base. State choice of Cream or Maroon and Gold colors. 115 volts, 60 cycle AC only.

Collaro Model RC-54—Net Each..... **$48.75**

Collaro Model RC-54-GE—Same, but has GE RPX-050 cartridge mounted in the GPE shell. Net Each..... **$56.00**

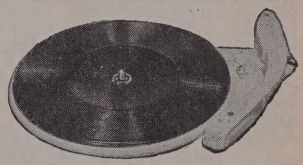
Collaro Model ARP-2—A gold/maroon model RC-54 mounted on MBC-2, audio and power wired (6 ft.), with 1 GPE less cartridge. Shipped assembled. Net Each..... **$55.90**

Collaro Model ARP-2-GE—ARP-2 with GE RPX-050 in GPE. Net..... **$63.15**

MODEL AC 3/554 HIGH FIDELITY RECORD PLAYER

A 3-speed record player without the automatic elements of changers, but with all the quality features (4-pole motor, molded rubber drive bushings, weighted turntable, etc.). With 2 plug-in cartridge shells. Choice of Cream or Maroon and Gold colors.

Collaro Model AC-3/554—Net **$25.20**



ACCESSORIES

Model GSA—Special 45 rpm slip-on spindle. Interchanges with standard spindle, permitting use of 45 rpm records. Net. **$3.30**

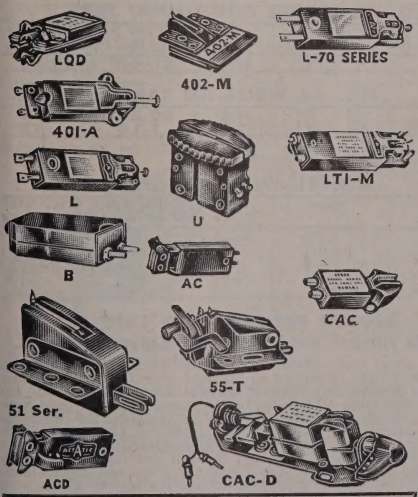
Model GPE—Empty plug-in cartridge shell. Accommodate most magnetic and crystal cartridges. Brown or Cream. Net... **$0.85**

Model GPA—Plug-in adapter for Audak L-6 cartridge. Brown or Cream. Net Each..... **$0.85**

Model MBC-2—Heavily constructed attractive Blonde or Mahogany base for RC-54 Changer. Net Each..... **$7.10**

Model MBP-2—Same as above, for 3/554 player. Net Ea. **7.10**

ASTATIC CRYSTAL PHONO CARTRIDGES

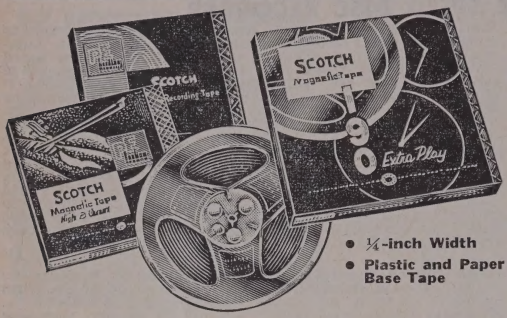


Astatic Model	Needle Pressure	Output Voltage	Frequency Range	Needle Type	Net Each
51-1J	8 grams	0.7	50-15,000	G-J	$4.44
51-3J	8 grams	0.7	50-15,000	G78J	4.44
	Above are high fidelity cartridges. Also available with diamond tips.				
CAC-J	6 grams	1.0	30-11,000	Q-33*	4.50
CAC-AG-J	10 grams	1.35	30-11,000	Q-AG*	4.50
CAC-78-J	10 grams	1.35	30-11,000	Q*	4.50
CAC-D-J	10 grams	0.8	30-11,000	Q* and Q-33*	6.30
LT-4AG	8 grams	2.00	50-5,000	D-AG Needle†	4.20
L-12	1 oz.	4.0	50-5,000	Optional	3.00
L-12-U	1 oz.	1.25 or 4	to 5,000	Optional	3.30
L-26A	2¾ oz.	1.4	50-4,500	Optional	3.00
L-40A	1¼ oz.	0.6	50-4,500	Optional	3.00
B-2	2¾ oz.	2.5	50-4,000	Optional	3.33
401-A	2¾ oz.	1.4	50-4,500	Optional	3.00
402-M**	12 grams	0.7	50-10,000	G-78†	4.14
L-70A	1¼ oz.	1.00	50-4,000	Optional	3.33
L-72A	1¼ oz.	3.5	50-4,000	Optional	3.99
L-82A	1½ oz.	3.5	50-5,000	Optional	3.33
L-92A	1 oz.	2.25	50-7,000	Optional	3.60
L-29	10 grams	3.0	50-5,000	Optional	3.60
U-J	5 grams	0.5	30-10,000	U*	5.34
U-78-J	5 grams	0.5	30-10,000	U-78*	5.34
53-2J	8 grams	0.7	50-15,000	G-AG-J	4.44
	Replacement for Sonotone Model No. W7590				
55-TJ	10 grams	0.8	50-15,000	GCD	5.70
	Turnover needle cartridge-replacement for Astatic GCDJ.				
LQD-J‡	LP. 6 gms.	0.9		Q-33*	5.70
LQD-1J‡	Std. 8 gms.	1.2	50-7,000	Q Needle	
	Same as LQD-J, except with needle guards and turnover knob.				5.70
AC-J	5 grams	1.0	50-10,000	A-1*	3.90
AC-AG-J	6 grams	1.0	50-10,000	A-AG*	3.90
AC-78-J	6 grams	1.0	50-10,000	A-3*	3.90
ACD-J‡	6 grams	1.0	50-6,000	A-3* A-1*	5.70
ACD-1J	As ACD-J but with spindle for turnover knob				5.70
ACD-2J	As ACD-J, with complete turnover assy. and knob.				6.00

*Sapphire Tipped. †Precious Metal Tipped. ‡Double Needle Turnover Models. §Ceramic. **Replacement for Admiral 78 RPM Snap-In cartridge.

WE CARRY A COMPLETE LINE OF CRYSTAL AND VARIABLE RELUCTANCE PHONOGRAPH CARTRIDGES, BOTH FOR HIGH FIDELITY AND FOR STANDARD REPLACEMENT PURPOSES. DO NOT HESITATE TO ORDER ANY NEW ITEM.

Scotch Brand Recording Tape



- ¼-inch Width
- Plastic and Paper Base Tape

Scotch Brand ¼″ tape is wound on plastic reels or in longer lengths on NARTB reels or hubs. Low coefficient of friction. Can be stored indefinitely without danger of distortion. Extremely low modulation noise, increased dynamic range. Excellent frequency response, even at lower speed. Available in wide variety of lengths on plastic reels and on NARTB hubs or reels.

No. 120 (A* or B**) "SCOTCH" HIGH OUTPUT TAPE

Plastic base, green color. Unequaled performance in difficult recording applications, giving at least 8 db more output with no increase in harmonic distortion. Professional reel, 2¾″ hub.

Scotch No.	Length of Tape and Description of Reel or Hub	List Price	Net Per Reel 1-11 Reels	Net Per Reel 12 or More
120A-3†	300′, plastic reel	$2.00	$1.33	$1.20
120A-6†	600′, plastic reel	4.00	2.67	2.40
120A-12†	1200′, plastic reel	6.50	4.34	3.90

Scotch No.	Length, Description	List Price	1-5 Reels	6 or More
120A-24H†	2400′, NARTB hub	$12.00	$ 8.00	$ 7.20
120A-24R†	2400′, NARTB 10½″ reel	14.85	9.90	8.91
120A-48H†	4800′, NARTB hub	24.00	16.00	14.40
120A-48R†	4800′, NARTB 14″ reel	30.00	20.00	18.00

NO. 120AM (A* OR B**) TAPE

As above but with Polyester backing.

Scotch No.	Reel Type and Length of Tape	List Price	Net Each 1-11 Reels	Net Each 12 or More
120AM-6	600′ plastic reel	$ 5.75	$ 3.84	$ 3.45
120AM-12	1200′ plastic reel	10.75	7.17	6.45
			1-5 Reels	6 or More
120AM-24H	2400′ NARTB Hub	18.95	12.64	11.37
120AM-24R	2400′ NARTB Reel	21.80	14.54	13.08
120AM-48H	4800′ NARTB Hub	37.90	25.27	22.74
120AM-48R	4800′ NARTB Reel	43.90	29.27	26.34

NO. 190 (A* OR B**) EXTRA PLAY TAPE

Plastic base maroon colored tape that will record 50% longer on a reel than formerly possible. High potency oxide coating reduced from .6 mils to .3 mils on a 30% thinner plastic back. Provides greater flexibility plus increased response on the high end. Machine changes or adjustments usually not required, and tape may be spliced into reels of heavier tape.

Scotch No.	Reel Size and Type	Feet Tape	List Price	NET EACH 1-11 Reels	NET EACH 12 or More
190A-9	5″ plastic	900	$ 4.50	$ 3.00	$ 2.70
190A-18	7″ plastic	1800	7.70	5.14	4.62
				1-5 Reels	6 or More
190A-36H	10½″ NARTB Hub	3600	14.40	$ 9.60	$ 8.64
190A-36R	10½″ NARTB Reel	3600	17.25	11.50	10.35
190A-72H	14″ NARTB Hub	7200	28.80	19.20	17.28
190A-72R	14″ NARTB Reel	7200	34.80	23.20	20.88

NO. 111 (A* OR B**) PLASTIC BASE TAPE

Scotch No.	Length of Tape and Description of Reel or Hub	List Price	Net Per Reel 1-11 Reels	Net Per Reel 12 or More
111A-1.5	150′, plastic reel	$1.00	$0.67	$0.60
111A-3	300′, plastic reel	1.75	1.17	1.05
111A-6	600′, plastic reel	3.50	2.34	2.10
111A-12	1200′, plastic reel	5.50	3.67	3.30
111A-12M	1200′, metal reel	5.50	3.67	3.30
111AP-12†	1200′, plastic prof. reel	6.00	4.00	3.60

Scotch No.	Length, Description	List Price	1-5 Reels	6 or More
111A-24H†	2400′, NARTB hub	$10.00	$ 6.67	$ 6.00
111A-24R†	2400′, NARTB 10½″ reel	12.85	8.57	7.71
111A-48H†	4800′, NARTB hub	20.00	13.33	12.00
111A-48R†	4800′, NARTB 14″ reel	26.00	17.33	15.60

*Magnetic coating wound face in. **Magnetic coating wound face out. †Output variation within the reel at 10,000 cps is less than ± ¼ db and is less than ± ½ db from reel to reel. The entire length is splice-free, except 4800′ length, which contains a maximum of one splice.

NO. 111AM (A* OR B**) TAPE

Same as 111, but with Polyester backing.

Scotch No.	Reel Type and Length of Tape	List Price	Net Each 1-11 Reels	Net Each 12 or More
111AM-6	600′ plastic reel	$ 5.25	$ 3.50	$ 3.15
111AM-12	1200′ plastic reel	9.75	6.50	5.85
			1-5 Reels	6 or More
111AM-24H	2400′ NARTB Hub	16.95	11.30	10.17
111AM-24R	2400′ NARTB Reel	19.80	13.20	11.88
111AM-48H	4800′ NARTB Hub	33.90	22.60	20.34
111AM-48R	4800′ NARTB Reel	39.90	26.60	23.94

NO. 101 (A* OR B**) PAPER BASE TAPE

Scotch No.	Length of Tape and Description of Reel or Hub	List Price	Net Per Reel 1-11 Reels	Net Per Reel 12 or More
101A-1.5	150′, plastic reel	$0.75	$0.50	$0.45
101A-3	300′, plastic reel	1.50	1.00	.90
101A-6	600′, plastic reel	2.25	1.50	1.35
101A-12	1200′, plastic reel	3.50	2.34	2.10
101A-12M	1200′, metal reel	3.50	2.34	2.10

Scotch No.	Length, Description	List Price	1-5 Reels	6 or More
101A-24H	2400′, NARTB hub	$ 6.50	$ 4.34	$ 3.90
101A-24R	2400′, NARTB 10½″ reel	9.35	6.24	5.61
101A-48H	4800′, NARTB hub	13.00	8.67	7.80
101A-48R	4800′, NARTB 14″ reel	19.00	12.67	11.40

EMPTY REELS AND BOXES, MAILING BOXES

Scotch No.	Description	List Price	Net Ea., in Lots of 1-11 Reels or Boxes	Net Ea., in Lots of 12 or More
RB-3	3″ (150′) Plastic reel & box	$0.25	$0.17	$0.15
RB-4	4″ (300′) Plastic reel & box	.55	.37	.33
RB-5	5″ (600′) Plastic reel & box	.65	.44	.39
RB-7	7″ (1200′) Plastic reel & box	.75	.50	.45
RB-7M	7″ (1200′) Plastic reel & box	.75	.50	.45
RB-7P	7″ (1200′) Plastic professional reel with box	1.25	.84	.75
RB-10½M	10½″ (2400′) NARTB metal reel with box	4.50	3.00	2.70
RB-14M	14″ (4800′) NARTB metal reel with box	8.70	5.80	5.22
H-M	NARTB metal hub	.75	.50	.45
B-3	3″ empty box	.15	.10	.09
B-4, B-5, B-7, B-7P	4″, 5″, 7″, 7″ prof. empty box	.20	.14	.12
B-10½	10½″ (2400′) empty box	.75	.50	.45
B-14	14″ (4800′) empty box	1.00	.67	.60
MB-4, MB-5†	4″ (300′) & 5″ (600′) mailing boxes	.15	.....	.09
MB-7†	7″ (1200′) mailing boxes	.20	.....	.12
MB-10½†	10½″ (2400′) mailing boxes	.30	.....	.18

†Available in minimum quantities of 12.

NO. 43 LEADER AND TIMING TAPE

Scotch No.	Size	List Price	Net per Roll, in Lots of 1-11 Rolls	Net per Roll, in Lots of 12 or More
43-1.5	¼″ x 150′	$0.60	$0.40	$0.36

NO. 48 WRITE-ON TAPE

48-¾ S*	¾″ x 100″	$0.25	$0.23	$0.18
48-¾ L**	¾″ x 66′	1.27	1.14	.89

*On metal utility dispensers. **Recommended for use on Plastic Hand or Desk Dispensers.

NO. 41 SPLICING TAPE

Scotch No.	Size	List Price	Cons. Net 12 or More	D'ler Net 12 or More
41-½ S*	½″ x 150″	$0.39	$0.35	$0.28
41-¾ S*	¾″ x 150″	.49	.44	.35
41-½ L**	½″ x 66′	.76	.69	.53
41-¾ L**	¾″ x 66′	1.01	.91	.71
41-7/16 L**	7/16″ x 66′	.57	.52	.40

SCOTCH PRE-RECORDED TAPE

HIGH FIDELITY RECORDING OF "DESERT SUITE"

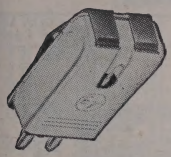
Selections from Walt Disney's Academy Award winning "The Living Desert" are presented in brilliant high fidelity under the direction of Mr. Thomas Peluso. Unusually complete instrumentation includes such seldom-heard instruments as the bass flute and Persian finger cymbals. Specially arranged for the orchestra of 54 top musicians selected for their artistry. Delicate English horn solos, full open brass and clashing cymbals and tympani create a dynamic range that can be captured only by modern magnetic tape techniques. The finest engineers and sound technicians made the master recording on No. 111 tape at 30 ips with a frequency response of 20-20,000 cps. Available on 3¾, 7½ and 15 inches per second recordings.

High Fidelity Recording	Tape Speed	List Price	Net Price 1-11 Reels	Net Price 12 or More
Walt Disney's "Desert Suite"	3¾″ per second	$3.30	$2.30	$1.98
	7½″ per second	4.40	2.93	2.64
	15″ per second	8.40	5.60	5.04

416-54B

Replacement Phono Cartridges

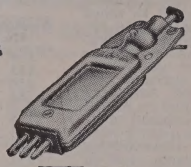
ELECTRO-VOICE PHONO-CARTRIDGES



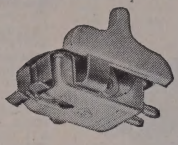
Models 12 & 14

Models 32, 33, 42, 43

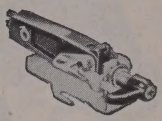
Models 34 & 44



Model 60



Model 16-TT



Models 46T & 96T

***6 Basic Preferred Types will make over 92% of all Cartridge Replacements**

MODEL 12 CRYSTAL CARTRIDGE FOR 78 RPM*

1.5 volt output. Weighs 1/5 ounce. Tracks perfectly with less needle force. With Snap-In Holder and mounting hardware. For standard ½" hole centers.

Electro-Voice Model 12—With O-3 Osmium needle. Net . $4.50

MODEL 32 CRYSTAL CARTRIDGE FOR 78 RPM

For longest record life, lowest needle talk, greatest stylus life. Response to 10,000 cps. Output 1.8 volts, usable in most radiophonos. ½" mounting.

Electro-Voice Model 32—With O-3 Osmium needle. Net . $3.90

MODEL 42 CERAMIC CARTRIDGE FOR 78 RPM

Ceramic generating element for complete moisture protection. Output 1 volt. Bracket for mounting in arms with ½" centers. Long-lasting in extremely hot, humid climates.

Electro-Voice Model 42—With O-3 Osmium needle. Net . $3.90

MODEL 14 CRYSTAL CARTRIDGE FOR 45 AND 33-1/3 RPM

Gets all the music from extended range fine groove records. Response free from peaks and distortion, 30 cps to 10 kc. Requires no preamplifier. Output, 1 volt.

Electro-Voice Model 14—With O-1 Osmium needle. Net . $4.50
Electro-Voice Model 14-S—With S-1 Sapphire needle. Net 5.10

MODEL 34 CRYSTAL CARTRIDGE FOR 45 AND 33-1/3 RPM

Output, 1.25 volts. Mounting bracket has ½" and ⅝" hole centers. Ideal replacement, RCA-type "45" and Col. "LP".

Electro-Voice Model 34—With O-1 Osmium needle. Net . $3.90
Electro-Voice Model 34-S—With S-1 Sapphire needle. Net 4.50

MODEL 44 CERAMIC CARTRIDGE FOR 45 AND 33-1/3 RPM*

Output, 0.8 volt. For arms with ½" or ⅝" hole centers. $3.90

Electro-Voice Model 44—With O-1 Osmium needle. Net.
Electro-Voice Model 44-S—With S-1 Sapphire needle. Net 4.50

MODEL 33 CRYSTAL FOR 78, 45 AND 33-1/3 RPM

Special needle plays all speeds. 2.3 mil tip. Output, 1.25 volts on microgroove, 1.8 volts on 78 RPM. Bracket has standard ½" hole centers. $3.90

Electro-Voice Model 33—With O-2 Osmium needle. Net.
Electro-Voice Model 33-S—With S-2 Sapphire needle. Net 4.50

MODEL 43 CERAMIC FOR 78, 45 AND 33-1/3 RPM*

Ideal for replacement in hot, humid climates. Output, 0.8 to 1 volt. Mounting bracket with ½" hole spacing. $3.90

Electro-Voice Model 43—With O-2 Osmium needle. Net.
Electro-Voice Model 43-S—With S-2 Sapphire needle. Net 4.50

MODEL 16-TT CRYSTAL TWIN TILT*

Plays all three speeds with a one-piece, twin-tip needle without weight change. Complete with TILT mechanism. Output, 1 volt on each tip. Exact replacement for Webcor cartridges. With Osmium 3-mil and Sapphire 1-mil tips. $6.00

Electro-Voice Model 16-TT—Net Each
Electro-Voice Model 16—Same, less TILT. Net Each . . . 5.40

MODEL 46-T CERAMIC TURNOVER CARTRIDGE*

Separate needles for fast and slow speed records. Needles isolated from one another allowing correct response on each. Output, .8 volt on each needle. Positive-acting turnover mechanism. Mounting plate supplied for LQD-type cartridges. With 3-mil Osmium needle and 1-mil Sapphire needle. $6.00

Electro-Voice Model 46-T—Net Each
Electro-Voice Model 46—Same, less harness. Net Each . . 5.40

MODEL 96-T CRYSTAL TURNOVER

For all three speeds. Output is 1 volt on each needle. Incorporates all construction features of 46-T. $6.00

Electro-Voice Model 96-T—Net Each
Electro-Voice Model 96—Same, less harness. Net Each . . 5.40

MODEL 60 CRYSTAL DUO-VOLT BIMORPH CARTRIDGE*

Uses any standard 3-mil, 1-mil or all-purpose needle (not supplied). Output, 4 or 2 volts on LP, 6 or 3 volts on 79 RPM. No soldering, no accessories required. ½" mounting centers, aluminum case. For varied replacement needs. $2.97

Electro-Voice Model 60—Less needle. Net Each

MODEL 50 BIMORPH CRYSTAL CARTRIDGE

High level cartridge, supplied less needle. Use with any 1-mil, 3-mil or all-purpose needle. Output level with straight shank is 2.5 volts. Aluminum case. $2.70

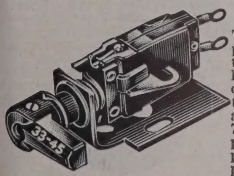
Electro-Voice Model 50—Less needle. Net Each

REPLACEMENT NEEDLES

E-V No.	Tip	Description	Net Ea.
O-3	Sgle.	.003" osmium for 12, 32, 42, 96, 96-T	$0.90
S-3	Sgle.	.003" sapphire (same models as O-3)	1.50
O-2	Sgle.	.0023" osmium for 33, 43	.90
S-2	Sgle.	.0023" sapphire for 33, 43	1.50

E-V No.	Tip	Description	Net Ea.
O-1	Sgle.	.001" osmium for 14, 34, 44, 96, 96-T	$0.90
S-1	Sgle.	.001" sapphire (same models as O-1)	1.50
SO-13	Twin	.001" sapphire, .003" os. (16, 16TT)	1.80
O-13	Twin	Same as SO-13, both tips osmium	1.50

WEBSTER-ELECTRIC REPLACEMENT CARTRIDGES



MODEL AX FOR ALL THREE-SPEED REPLACEMENTS

The special bracket arrangement permits mounting cartridge with twist mechanism in any standard half-inch mounting, or cartridge only in tone arms equipped with twist mechanism. Delivers 1.0 volts at 33⅓ or 45 RPM and 1.5 volts at 78 RPM with only 7 grams tracking pressure. The crystal is Dri-Seal protected, and the cartridge is packed in a special Dri-Pack container together with two osmium tipped replaceable needles, terminal lugs and complete instructions. $5.10

Webster-Electric Model AX—Net Each

MODEL BX FOR RCA AND COLUMBIA

This is a high fidelity replacement cartridge for R.C.A. Automatic Record Changers and Columbia Record Players. It is compact and light in weight. It tracks perfectly. $3.90

Webster-Electric Model BX—Net Each

MODEL CX FOR SINGLE-NEEDLE THREE-SPEED

Here is a lightweight, high output cartridge for flange, clip, bracket or stud mounting. It is for use with 78 rpm players or for those with single-needle, three-speed operation. Replaces Featheride C3, C8, C9 and C9X. Removable flange and universal mounting permit use in any arm with ½" mounting. $2.97

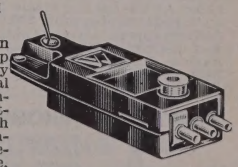
Webster-Electric Model CX—Net Each

MODEL FX FOR WEBSTER AND ASTATIC

This is a lightweight, two-needle cartridge for installation in either Webster or Astatic twist mechanism. Shunting capacitor gives choice of high or low output. Comes in neat plastic container with all needed installation fittings. $5.10

Webster-Electric Model FX—Net Each

MODEL WS FOR ALL 78 RPM REPLACEMENTS



Unique three-terminal construction enables the one cartridge to develop either 1.5 volts or 4.0 volts at only ¾ ounce tracking pressure. Dri-Seal protected crystal and Dri-Pak container combine to give you a cartridge that is always factory-fresh and ready to deliver top performance. Furnished complete with replaceable osmium tipped needle, arm rest button, extra needle screw, spacers, pin type terminal lugs and jumper and complete instructions. $3.45

Webster-Electric Model WS—Net Each

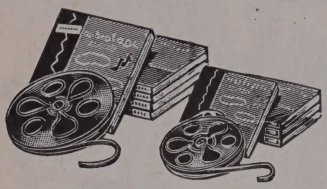
MODEL WX DUAL VOLTAGE CARTRIDGE FOR 78 RPM OR 3-WAY REPLACEMENT

A single-needle, dual voltage crystal cartridge for either 78 rpm or 3-speed use. It develops 5 volts at 78 rpm without capacitor and with shunting capacitor 1.5 volts. At 33⅓ rpm and 45 rpm it develops 2 volts without capacitor and 0.75 volt with capacitor. The cut-off frequency is at 5000 cps. Tracking pressure is 14 gr. for all three speeds. It fits any standard ½-inch mounting. Model WX comes packed in special Featheride "Jewel Case" container for maximum protection. Complete with capacitor, all necessary installation fittings and hardware, easily followed instructions and data on characteristics and performance. Net Wt. 7.25 gr. $2.97

Webster Electric Model WX—Net Each

Tape and Phono Supplies

AUDIOTAPE RECORDING TAPE AND REELS



Audiotape has been developed to meet the most rigid requirements for professional as well as amateur use, and to assure optimum performance. Audiotape is supplied on plastic reels, designed to fit all standard machines. Also available in 7" plastic reels on special order. (If stock number ends in **0**, oxide wound out. If number ends in **1**, oxide wound in. Here are some of the outstanding features:

1. Superior straight line slitting makes the tape track and wind flat. High signal to noise ratio, low distortion.
2. The tape is completely free from any tendency to stick, layer to layer.
3. AUDIOTAPE has no audible low-frequency modulation noise.
4. Unequalled uniformity of output. Plastic-base tape guaranteed not to exceed ±¼ db within the reel and ±½ db from reel to reel. Wider bias range for optimum results.
5. Plastic base AUDIOTAPE, in 1250 and 2500 foot reels is guaranteed to be free from splices.

PLASTIC BASE AUDIOTAPE

Audiotape No.	Length in Feet	Oxide	List Price	Net Each	Lots of 10 Net Each
150	150	Red	$ 0.85	$0.57	$0.51
151	150	Red	.85	.57	.51
350	300	Red	1.60	1.07	.96
351	300	Red	1.60	1.07	.96
650	600	Red	3.50	$2.33	$2.10
651	600	Red	3.50		
1250	1200	Red	5.50	$3.67	$3.30
1251	1200	Red	5.50		
1250S	1250	Red	5.50	$3.67	$3.30
1251S	1250	Red	5.50		
2551H‡	2500	Red	10.00	6.67	6.00
2551R†	2500	Red	12.85	8.57	7.71
5051R†#	5000	Red	26.00	17.33	15.60
5051H‡	5000	Red	20.00	13.33	12.00

‡On NAB only. †On complete reel. #1000 meters.

MYLAR* BASE AUDIOTAPE

Exceptional strength, virtually unbreakable under normal conditions. Immune to humidity, moisture and temperature. 1½ mil thick. Most permanent recording medium ever developed.
*Dupont trademark.

Audio No.	Length	Reel	List Price	Net Each	10 or More Net Each
371	300′	4" Plastic	$ 2.75	$ 1.83	$ 1.65
671	600′	5" Plastic	5.00	3.33	3.00
1271	1200′	7" Plastic	8.25	5.50	4.95
2571H	2500′	Std. NAB Alum. Hub	15.00	10.00	9.00
2571R	2500′	10½" Aluminum Reel	17.85	11.90	10.71

REELS, HUBS, FLANGES, BOXES

Audio No.	Description	Std. Qy.	List Price	Net Each	Net Ea. Std. Qy.
3L	150-ft. Leader Tape	10	$0.60	$0.40	$0.36
30AL	Adhesive Labels (30)	10	.25	.17	.15
3P	3" Plastic Reel	10	.15	.10	.09
4P	4" Plastic Reel	10	.30	.20	.18
5P	5" Plastic Reel	10	.40	.27	.24
7P	7" Plastic Reel	10	.65	.43	.39
7A	7" Aluminum Reel	10	1.15	.77	.69
10H	Stand. NAB Alum. Hub	5	.65	.43	.39
10S	Pair 10½" Side Flanges	5	3.35	2.23	2.01
10R	10½" Aluminum Reel	5	4.00	2.67	2.40
14S	14" Side Flanges, Alum.	5	7.25	4.83	4.35
14R	14" Aluminum Reel	5	7.90	5.27	4.74
3B	Empty Box for 3" Reel	10	.15	.10	.09
4B	Empty Box for 4" Reel	10	.15	.10	.09
5B	Empty Box for 5" Reel	10	.15	.10	.09
7B	Empty Box for 7" Reel	10	.20	.13	.12
10B	Empty Box for 10½" R'l	5	.65	.43	.39
14B	Empty Box for 14" Reel	5	1.00	.67	.60
3PB	3" Plastic Reel in Box	10	.25	.17	.15
4PB	4" Plastic Reel in Box	10	.40	.27	.24
5PB	4" Plastic Reel in Box	10	.55	.37	.33
7PB	7" Plastic Reel in Box	10	.85	.57	.51
7LH	Same as 7PB, Lge. Hub	10	1.00	.67	.60
10RB	10½" Al. Reel in Box	5	4.50	3.00	2.70
14RB	14" Al. Reel in Box	5	8.70	5.80	5.22
5M	Cor. Mail. Box., 5" Rl.	50	.15	.10	.09
7M	Cor. Mail. Box, 7" Rl.	50	.20	.13	.12
10M	Cor. Mail. Box, 10½" Rl	50	.30	.20	.18

TYPE LR AUDIOTAPE

Provides 50% more recording time on a single reel of tape. Same quality as plastic base tape, but uses base material of 1 mil Mylar* polyester film having a much higher tensile and tear strength than cellulose acetate of the same thickness.

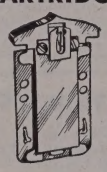
Audio No.	Length	Reel	List Price	Net Each	10 or More Net Each
961	900′	5" Plastic	$ 4.40	$ 2.93	$ 2.64
1861	1800′	7" Plastic	7.95	5.30	4.77
3661H	3600′	Std. NAB Alum. Hub	16.00	10.67	9.60
3661R	3600′	10½" Aluminum Reel	17.95	11.97	10.77

COLORED PLASTIC REELS

5" and 7" plastic reels are now available in red, yellow, green, blue and clear plastic. Different colors can be used to identify studio, field, safety and customer's tapes; to separate daylight-saving-delay tapes; for distinguishing between edited and preliminary recordings; for storage of important "don't erase" material, etc. Per empty reel, List Price **85c.** Net Each..... **51c**

RCA CRYSTAL CARTRIDGES AND PHONO SWITCHES

RCA MAGIC TONE CELL CRYSTAL CARTRIDGE



A precision-made sapphire stylus pickup unit especially for RCA Victor radio-phonographs. Permanent-type sapphire needle tracks records smoothly, gently. Reduces record wear and surface noise. At 400 cps the Magic Tone Cell has an impedance of approx. 200,000 ohms and delivers approx. 1½ volts output. Replaces and modernizes 62 different RCA Victor Models. Complete unit ready to install.
RCA Type 9890— Net Each..... **$4.68**

240X1 RADIO-PHONO SWITCH

Enables operation of record players through radios without phono inputs. Allows quick changeover from radio to phonograph. Hum-free. Mounts neatly in the back of the radio cabinet. Complete with 15" length of shielded cable, phono plug, jack, instructions. Net Each..... **$1.50**

202W1 PLAYER SWITCH

For use of two record players with one amplifier or radio. Instantaneous changeover from one to the other. In metal case. Mounts to back of cabinet. Includes all necessary fittings. No soldering required. Shpg. Wt., 6 oz. Net Ea. **$3.40**

RCA SILENT SAPPHIRE CRYSTAL CARTRIDGE

Minimize your crystal stock requirements This versatile RCA pickup can be used to replace a great many different crystals. Features the "Silent Sapphire" permanent-type needle. Tracks easily. Reduces chatter.
RCA Type 70338A— Net Each..... **$4.35**

MODEL 38610 CARTRIDGE

Exact replacement in RCA Models V135, V140, V175, V209, V210, VHR212 and Radiola 566P. Shpg. Wt. 4 oz. Net **$3.69**

MODEL 74067 CARTRIDGE

Replacement in RCA Models 9JY, 9JYM, 9EY3, 9EYM3, 9Y7, 9EY35, 9EY36, 9Y51, 9W101, 9W102, 9W103, 9W105, 9TW333,9TW390, 45J and 45EY. Shpg. Wt., 5 oz. Net Each..... **$3.84**

MODEL 75575 CARTRIDGE

Replacement in RCA Models 2T81, 6T86, 9Y510. Shpg. Wt., 5 oz. Net Each **$3.84**

OTHER RCA CARTRIDGES

RCA Type	Net Ea.	RCA Type	Net Ea.
14820	$6.60	70338	$4.20
31050	2.94	70339	4.20
31156	3.18	75044	5.70
34710	3.60	75976	4.50
38598	4.80	76257	5.10
39919	4.80	76297	4.95

697X-55A

DISC-O-FOAM FOAM RUBBER TURNTABLE MAT

Dresses up and replaces worn turntables. Covers wear thin, Disc-O-Foam becomes your new lifetime turntable. **Stops record slippage.** ¼-inch poured foam rubber conforms to record surface and grips turntable for correct, even speed. **Absorbs rumble.** Physically insulates motor from cartridge reducing feedback by damping variations. **Reduces hum, lengthens record life.** Reduces hidden pull often present between magnetic cartridge and steel turntables. **Cushions record drop** and minimizes shock caused by direct drop on automatic changers. As it is **a dust-free cover** for flock-coated turntables which collect dust, grit, it keeps records clean by preventing the records from picking up this matter from the turntable. **Protects expensive needles** by eliminating needle bruise caused by contact with standard metal base turntables.
Disc-O-Foam Mat—Net Each.... **$2.95**

Recording Discs, Wire, Needles

AUDIO DEVICES PHONO NEEDLES

SAPPHIRE No. 14—This AUDIOPOINT has long been recognized by recording engineers as the best recording stylus made. The jewelled point, with 87° included angle, correct radius and fine polish, cuts a silent, shiny groove for many hours. It is especially designed to insure proper thread throw and each stylus is disc tested on a recording machine just before packaging, thus guaranteeing quality and uniformity. Can be resharpened a number of times. Supplied with short or long dural shank. (Also available with 70° included angle.) Net Price..... **$4.50**

SAPPHIRE No. 20—Especially designed for professional microgroove recording. Short or long dural shank. Can be resharpened. Net Each..... **$4.50**

STELLITE No. 34—A favorite with many professional and non-professional users. Short or long shank. 87° included angle. Net Each..... **$1.20**

SAPPHIRE No. 202—A professional recording stylus with brass shank ideally suited for those recordists not requiring the super quality of Sapphire AUDIOPOINT No. 14. Supplied with short or long shank. Can be resharpened. Net Price..... **$3.60**

DIAMOND-LAPPED STEEL No. 50—Most practical stylus for use by non-professional recordists. Cannot be resharpened. Mounted 3 per card. Net Price..... **$1.05**

PLAYBACK NEEDLES

Sapphire No. 113—The outstanding choice of professional recordists. Materials workmanship and design make this playback sapphire the finest obtainable. Reproduces recorded sound with complete fidelity and minimum disc wear. One of these points will play thousands of instantaneous recordings or vinyl transcriptions. NOT FOR USE ON SHELLAC RECORDS. Can be repolished. Net Price..... **$2.70**

Sapphire No. 123—For professional use with microgroove recordings. Net Each..... **$1.20**

"Red Circle" Sapphire No. 103—With straight dural shank and a fine polished jewel. Excellent for instantaneous recordings and vinyl transcriptions. Complete fidelity and minimum disc wear. Also ideal for phonograph records. Net Price..... **$1.20**

"Red Circle" Sapphire No. 303—This is the same playback point as No. 103, but with a bent dural shank. It is thus particularly adapted for heavy pickups. Net Price..... **$1.20**

Steel Transcription Needle No. 151—These are the best steel needles made and 100% shadowgraphed, meaning that each needle has been examined with a machine which throws a greatly enlarged shadow of the point on a screen. In this process all imperfect needles are rejected.
Envelope of 20—Net Each..... **15c**

audiodiscs

FOR EVERY RECORDING NEED

AUDIODISCS are high quality, precision-made instantaneous recording blanks which have established new standards of perfection and won the acclaim of professional and amateur recordists. Designed for all high fidelity recording. Audiodiscs meet every need with a type for each application.

DESCRIPTION	Size, In.	Apx Thk In.	Approx. Record'g Time, Minutes 33 RPM	78 RPM	List Price Per Disc	Std. Pkgs. Contain	Net Price Per Disc in Std. Pkg.
RED LABEL							
Standard throughout the recording profession, Red Label AUDIODISCS exceed the professional demands of broadcasting stations, sound and movie studios and other exacting applications where top quality and dependability are essential requirements. They are the finest discs obtainable. Double-sided with center-pin and three drive-pin holes. Embossed label. Envelopes supplied in package. *New 45 RPM.	7*	.050	.....	.....	$1.15	25	$0.69
	8	.040	.....	2¼	.90	25	.54
	10	.040	8	3½	1.25	25	.75
	12	.050	10	5	2.05	25	1.23
	16	.050	15	.....	3.75	25	2.25
SINGLE FACE RED LABEL							
In instances where professional recordists need to record on only one side of a disc, Single Face Red Label AUDIODISCS are available. Both sides are coated with the recordable side identified with embossed label. These discs have exactly the same fine qualities as standard Red Label and bring real economy to applications requiring but one side. Center-pin and three drive-pin holes. Envelopes supplied in package.	12	.050	10	5	1.65	25	.99
	16	.050	15	.....	2.95	25	1.77
YELLOW LABEL							
The popular choice for all general purpose recording, Yellow Label AUDIODISCS are of high uniform quality. They are designed primarily for commercial recording studios, educational institutions, home recordists and other applications where the super quality Red Label AUDIODISCS are not required. Center-pin and three drive-pin holes. Paper label. Packaged in paper envelopes.	8	.040	.....	2¼	.75	25	.45
	10	.040	8	3½	1.00	25	.60
	12	.050	10	.....	1.65	25	.99
	16	.050	15	.....	2.95	25	1.77
REFERENCE LABEL							
Especially adapted for making test cuts, filing and reference recordings, auditions and equipment adjustments. Reference Label AUDIODISCS fill a definite need. Since this work does not demand complete freedom from minor surface imperfections, these discs fully meet the necessary requirements. Center-pin and three drive-pin holes. Paper label. Packaged in paper envelopes.	10	.040	8	3½	.85	25	.51
	12	.050	10	5	1.25	25	.75
	16	.050	15	.....	2.25	25	1.35
BLUE LABEL							
For schools, homes, amateur and demonstration work, Blue Label AUDIODISCS offer the very best in recording quality at a low price. Made of exactly the same materials used in the manufacture of professional type of AUDIODISCS—except on a thinner aluminum base. Center-pin and three drive-pin holes. Paper label. Packaged in paper envelopes.	6½	.027	.....	1¼	.40	50	.24
	8	.027	.....	2¼	.55	50	.33
	10	.027	8	3½	.80	50	.48
MASTERS							
Where copies of recordings (pressings) are to be made by the electroplating process, Master AUDIODISCS are the outstanding choice. The excellence and consistent quality of these discs are well-known to all record processors. Master AUDIODISCS give fine results with either the gold sputtering or silvering process. These oversized discs are coated an extra thick aluminum base. Double-sided and Single Face. Center-pin and one drive-pin hole. Envelopes supplied in package.	Double-sided						
	12	.050	.....	5	2.60	25	1.56
	13¼	.065	.....	5	3.35	25	2.01
	16	.....	.....	.....	4.85	25	2.91
	17¼	.065	15	.....	5.60	25	3.36
	Single Face						
	12	.050	.....	.....	2.05	25	1.23
	13¼	.065	.....	5	2.35	25	1.41
	16	.....	.....	.....	3.95	25	2.37
	17¼	.065	15	.....	4.10	25	2.46

AUDIO DEVICES CHIP-CHASER

Brushes thread away from stylus when recording. Heavy base requires no fastening down. Fits any machine or turntable. Tips out of way when not in use.

Audio Devices Chip-Chaser—
For up to 12" turntable. Net Each. **$3.00**
For up to 16" turntable— Net Each..... **$3.75**

445X-54A

PERMO-MAGNETIC RECORDING WIRE

Available with either plastic or nylon leaders attached to wire.

Permo. No.	Playing Time	Lgth. Ft.	Net Each
160-36	1 hr.	7200	$3.60
260-36	½ hr.	3600	2.40
360-36	¼ hr.	1800	1.80

EMPTY REELS

Permo. No.	For	Size	Type	Net Each
PM-121N7	Wire	....	Metal	45c
TM-35-PM	Tape	5"	Metal	54c
TM-37-PM		7"	Metal	60c
T-5-PM		5"	Plastic	30c
T-7-PM		7"	Plastic	36c

Jensen Exact Replacement Needles

Figures in "point" column indicate point size as follows: 1—.001″ Microgroove for 33⅓ and 45 rpm only; 2—.002″ for all three speeds; 3—.003″ Standard for 78 rpm only; 1-3—Twin needle—.001″ and .003″; 2.5—.0025″ Transcription for broadcasting. Letter following point size shows point material—M—metal; J—jewel. Needles marked (J) are also available with diamond points; simply add (D) to needle number when ordering.

FOR ASTATIC CARTRIDGES

Jensen Type	Fig.	Point	For Cartridge Type No.	Net Each
A-68	1	1-3J	Webcor 57T(J)	$2.10
A-69	1	1-3M	Webcor 57T(M)	1.50
A-71	1	1-3J	55T(J); GC-DJ	2.10
A-72	1	1-3M	55T(M); GC-DM	1.50
A-70	2	3M	14L3-78M; -D; -M	.90
A-70LP	2	1M	15L3-78M; -D; -M	.50
A-702	2	2M	14L3-AG; 15L3-AG	.90
A-73	3	3J	LT-3D; LT-4D; LT-4;	1.50
A-73LP	3	1J	LT-4D1	1.50
A-83	3	3M	Same as above	.90
A-83LP	3	1M	Same as above	.90
A-732	3	2J	LT-4-AG; LT-5-AG	1.50
A-832	3	2M	LT-4-AG; LT-5-AG	.90
A-86	3	3M	LT1-M; LT2-M; LT3-M	.90
A-86LP	3	1M	LT-33	.90
A-74	4	3J	GC series; 53-2; 51-1	1.50
A-74LP	4	1J	MG Series; 402M	1.50
A-84	4	3M	Same as above	.90
A-84LP	4	1M	Same as above	.90
A-742	4	2J	GC-AG-J; GC-AG-M;	1.50
A-842	4	2M	MG-AG-M	.90
A-75	5	3J	Series AC; ACD;	1.50
A-75LP	5	1J	10L3; 11L3	1.50
A-85	5	3M	Same as above	.90
A-85LP	5	1M	Same as above	.90
A-752	5	2J	AC-AG-J; AC-C-AG-J	1.50
A-852	5	2M	AC-AG-M; AC-C-AG-M	.90
A-76	6	3M	66TY; 68TY	.90
A-76LP	6	1M	66TY; 68TY	.90
A-762	6	2M	66TY; 68TY	.90
A-78	7	3J	U-78-J; U-78-M	1.50
A-78LP	7	1J	U-J; U-M	1.50
A-88	7	3M	U-78-M; U-78-J	.90
A-88LP	7	1M	U-M; U-J	.90
A-87	7	3M	MD-3 Markel	.90
A-87LP	7	1M	MD-1 Markel	.90
A-89	7	3J	MD-3 Markel	1.50
A-89LP	7	1J	MD-1 Markel	1.50
A-80	8	3M	Series T; LQD; CAC;	.90
A-80LP	8	1M	CQ; 403	.90
A-81	8	3J	Same as above	1.50
A-81LP	8	1J	Same as above	1.50
A-802	8	2M	CQ-AG; CAC-AG	.90
A-812	8	2J	Same as above	1.50
A-82	9	3M	Nylon 1M; 1J	.90
A-82-S	9	3J	Same as above	1.50
J-15LP	10	1M	L-92-33	.90
J-152	10	2M	L-92-A; L-29; 16L3; 17L3	.90

FOR ELECTRO-VOICE CARTRIDGES

E-90	11	3J	10; 30; 40; 12; 32; 42;	1.50
E-95	11	3M	47; 36; 46; 96; 82S	.90
E-90LP	11	1J	10; 30; 40; 14; 34; 44;	1.50
E-95LP	11	1M	36; 46; 47; 96; 84S	.90
E-902	11	2J	Series 33; 43;	1.50
E-962	11	2M	Admiral 409A13-1	.90
E-91	12	1-3J	16TT; 22TT	2.10
E-93	12	1-3M	16TT; 22TT	1.50
J-152	10	2M	50; 60	.90

FOR GENERAL ELECTRIC CARTRIDGES

G-10	13	3J	RPX-040; -041; -042;	2.10
G-10LP	13	1J	-046; -061; -063	2.10
G-1025	13	2.5J	Same as above	2.10
G-11	14	1-3J	RPX-047; -050; -051;	3.57
G-12	14	1-2.5J	-052; -053	3.57
G-13	15	1-3J	Same as above	3.57
G-12.5	15	1-2.5J	Same as above	3.57
G-1	16	1J	Same as above	2.10
G-3	16	3J	Same as above	2.10
G-2.5	16	2.4J	Same as above	2.10

FOR MAGNAVOX CARTRIDGES

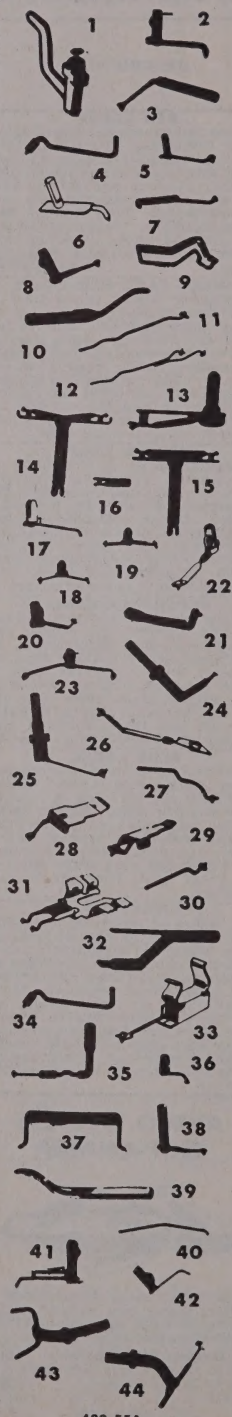
A-81	8	3J	560052	1.50
M-02	17	3M	560101	.90
M-46	18	1-3M	560133; 560133-4	1.50
M-48	18	1-3J	Same as above	2.10
M-47	19	1-3M	560151-5; 560151-6	1.50
M-49	19	1-3J	Same as above	2.10
S-66	35	1-3J	560161-1	2.10

FOR PHILCO CARTRIDGES

PH-9	20	1J	45-9792	1.71
PH-10	21	3J	76-1622 Dyn. Rep.	1.35
M-60LP	22	1J	45-1609; 45-1612	.90
PH-11	22	1M	Same as above	.90
PH-12	23	1-3M	76-4649	1.50
PH-13	23	1-3J	76-4649	2.10
A-76	6	3M	425-0012	.90
A-76LP	6	1M	425-0012	.90
JPS-30	27	3J	35-2671; 35-2674	1.50

FOR RCA CARTRIDGES

M-70	24	3J	70338; 70339; 72551	2.37
M-71	24	3M	Same as above	1.20
M-70LP	24	1J	74067	.96
M-71LP	24	1M	74067	.90
M-72	24	3J	9890; 39919; 39550;	2.37
M-73	24	3M	38598; 70332; 39851	1.20
M-74	25	3J	75475; 77779	1.50
M-75	25	3M	75475; 77779	.90



482-55A

FOR RCA—CARTRIDGES—Cont.

Jensen Type	Fig.	Point	For Cartridge Type No.	Net Each
M-74LP	25	1J	75475; 74625; 75575;	$1.50
M-75LP	25	1M	76318; 77779	.90
A-74LP	4	1J	74984; 76297	1.50
A-81LP	4	1J	73839	1.50
A-75LP	4	1J	76257; 988370-2	1.50
G-10LP	13	1J	74466	2.10
G-11	13	1-3J	78634; 78769; 93409	3.57
JPS-30	27	3J	75044	1.50
JPS-30LP	27	1J	75044; 76257; 988370-1	1.50
JPS-33	27	3J	78478	1.50
JPS-33LP	27	1J	78478	1.50
S-66	35	1-3J	78748	2.10
S-63LP	33	1J	79791	1.50

FOR RONETTE (COLLARO) CARTRIDGES

CR-55	26	3J	Studio O; Studio P;	1.50
CR-55LP	26	1J	TO-284-N; TO-284-OV	1.50

FOR SHURE CARTRIDGES

JP-30	27	3M	P Series (30, 57, 70, 72, 72V, 73, 76, 76V, 77, 79, 85	.90
JP-30LP	27	1M	88, 89, 94) PC41V; PN30; W Series (21A, 21AR, 21F.....	.90
JPS-30	27	3J	22A, 22AB, 23A, 23B, 60A, 60B, 60Hs, 60PN, 61B, 65B)	1.50
JPS-30LP	27	1J	WC22AB; Admiral 409A11	1.50
JP-312	27	2M	P37; P71; P81; P81AD; W26A; W26B	.90
JPS-312	27	2J	W66B; Adm. 409A13	1.50
JP-32	28	3M	WC33B; WC24;	.90
JP-32LP	28	1M	PC40; PC9; PC11;	.90
JPS-32	28	3J	W31AR; WC31AR	1.50
JPS-32LP	28	1J	Same as above	1.50
JP-322	28	2M	W36B; WC36B;	.90
JPS-322	28	2J	PC10	1.50
JP-33	29	3M	PC14	.90
JP-33LP	29	1M	PC13	.90
JP-332	29	2M	PC12; WC38	.90
JPS-33	29	3J	PC14	1.50
JPS-33LP	29	1J	PC13	1.50
JPS-332	29	2J	PC12, WC38	1.50
JP-34	30	3M	PC42AD; Admiral	.90
JP-34LP	30	1M	409B19-8	.90
JPS-34	30	3J	Same as above	1.50
JPS-34LP	30	1J	Same as above	1.50
JP-35	31	1-3M	PC-2; PC-3	1.50
JPS-35	31	1-3J	PC-2; PC-3	2.10
JP-36	31	1-3M	PC4; PC5	1.50
JPS-36	31	1-3J	PC4; PC5	2.10
J-15LP	10	1M	P93MG; P95MG;	.90
J-152	10	2M	W53MG	.90
WG-65	32	3M	W56N; W56R; W65N	1.50
WG-652	32	2M	Same as above	1.50

FOR SONOTONE CARTRIDGES

S-63	33	3J	1P-3S	1.50
S-63LP	33	1J	1P-1S	1.50
S-632	33	2J	1P-2S	1.50
S-64	34	3J	W-7590-3 Titone	1.50
S-65	34	3M	Same as above	.90
S-64LP	34	1J	W-7590-1 Titone	1.50
S-65LP	34	1M	Same as above	.90
S-642	34	2J	W-7590-2 Titone	1.50
S-652	34	2M	Same as above	.90
S-66	35	1-3J	W9980-S; W9980-SD	2.10

FOR WEBSTER ELECTRIC CARTRIDGES

W-02	36	3M	M-1	0.90
W-05	37	1-3M	F14 Series	1.50
J-15LP	10	1M	F7 Series; F13; Q2; AJ4	.90
W-14	38	3J	A1 thru A8; AX	1.50
W-15	38	1J	Same as above	1.50
W-16	38	3M	Same as above	.90
W-17	38	1M	Same as above	.90
W-38	38	2M	A9M; A9-1; All	.90
W-44	38	3M	F-20; F-22; FX	.90
W-44LP	38	1M	Same as above	.90
W-52	38	3M	RG Series	.90
W-52LP	38	1M	RG Series	.90
W-72	38	3M	F16; F16-1; F16-2	.90
W-73	38	1M	Same as above	.90
W-81	38	3M	F15; F15-1; F18; F19	.90
W-82	38	1M	Same as above	.90
J-25	39	3J	Q2; WS; Q1	1.50
J-152	10	2M	Q3; C9; CX; F-13; WS	.90
W-36	40	3M	G3M	.90
W-36LP	40	1M	G1M	.90
W-362	40	2M	G2M	.90
W-43LP	41	1M	B1M; BX	.90
W-45	42	3M	AG1M; AG7M; AG1;	.90
W-45LP	42	1M	AG7	.90
JPS-30	27	3J	F10; F11; F11-1	1.50
JPS-30LP	27	1J	F11; F11-1	1.50

FOR WEBSTER-CHICAGO (WEBCOR) CARTRIDGES

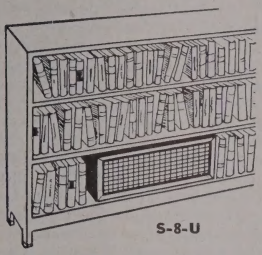
NE-215	43	1-3M	21P247; 21P402, 3	2.40
NE-317	44	1-3J	21P404	3.00
NE-368	44	1-3M	21P404	2.40

Speaker Enclosures, Projector

R-J SPEAKER ENCLOSURES AND SPEAKERS

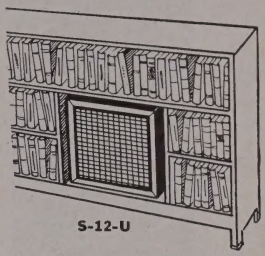
The R-J Enclosure is equally impressive in its unobstructed direct radiation of high frequencies. Excellent acoustic loading affords best reproduction of transients. Fine furniture construction used throughout. Expertly built of genuine Mahogany or Korina veneers, with hand-rubbed dark or blond finish. Special models available unfinished to fit shelves of bookcases and similar uses.

These enclosures establish a new trend in audio design with excellent performance from any speaker in a cabinet only slightly larger than the speaker itself. The R-J Enclosure will permit the user to realize the full potential of any speaker with which it is used. It offers clean, smooth bass fundamentals, without peaks, down to low organ pedal notes. Resonances eliminated.



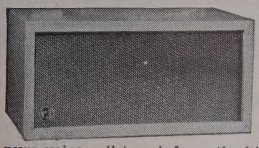
S-8-U

MAXIMUM BASS MINIMUM SPACE



S-12-U

R-J WHARFEDALE COMPLETE SPEAKER COMBINATION



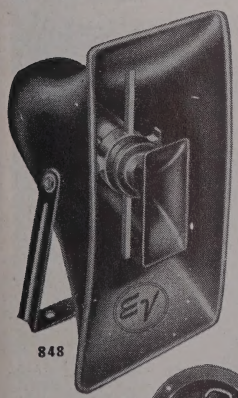
A high fidelity 8-inch speaker offered in choice of Blond Korina (illustrated) or dark Mahogany with distinctive gold-color expanded aluminum grille. Grille is acoustically perfect since it does not impede the sound in any way. 8-in. Wharfdale Speaker is specially designed for the unit; has aluminum voice coil to reinforce the highs.

Besides the aluminum voice coil this speaker incorporates a cast chassis and a felt "buffer" between the speaker cone and frame. **Flux Density:** 10,000 lines. **Impedance:** 10 ohms. **Total Flux:** 39,500 lines with ample power handling capacity. **Frequency Response:** 50-16,000 cycles. **Size** is 11" x 10" x 23½". **R-J Model S-8-MC 8-in. Speaker**—Mahogany. Net... $54.50
R-J Model S-8-BC 8-in. Speaker—Blond Korina. Net. $57.50

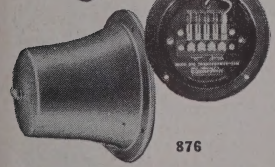
ENCLOSURES FOR 8 TO 15-INCH SPEAKERS

Model	Description	Net Each
S-8-U	For 8" speaker. Single-shelf model to fit in bookcase. 11" high, 23½" long, 10" deep. Finish sanded, unpainted.	$24.50
S-12-U	For 12" speaker. Double-shelf model to fit in bookcase. 24" high, 21" long, 10" deep. Finish sanded, unpainted.	29.50
F-12-M	For 12" speaker. Floor model. 20" high, 20" long, 16" deep. Hand rubbed, Mahogany finish.	49.95
F-12-U	Same as F-12-M, sanded, unpainted	43.35
F-15-M	For 15" speaker. Floor model. 20" high, 20" long, 16" deep. Hand rubbed, Mahogany finish.	49.95
F-12-B	For 12" speaker. Floor model. 20" high, 20" long, 16" deep. Hand rubbed, blonde Korina finish.	54.50
F-15-B	For 15" speaker. Floor model. 20" high, 20" long, 16" deep. Hand rubbed, blonde Korina finish.	54.50
F-15-U	Same as F-15-M, sanded, unpainted	43.35

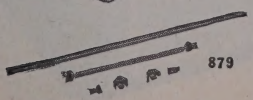
ELECTRO-VOICE MODEL 848 COMPOUND DIFFRACTION PROJECTOR



848



876



879

Unique and exclusive Electro-Voice Model 848 speaker system for improved public address provides guaranteed increase of articulation index for speech reproduction and 2½ octaves increased range for music. Compound diffraction principle assures much greater sound dispersion; uncompromised efficiency; construction is virtually indestructible. Design is so superior to conventional re-entrant PA horns that there is no basis for direct comparison of performance. A fundamentally new concept, the Model 848 utilizes two coaxially mounted horns working from opposite sides of a single diaphragm.

Each horn is designed for optimum reproduction within its own range, providing uncompromised response, plus or minus 5 db to 11,000 cps. Low end response is augmented by 100 cps horn taper which insures at least ½-octave added bass over that possible from larger, conventional re-entrant projectors. Articulation index at least 20% superior to re-entrant horns. Polar distribution pattern exceeds 120° at all frequencies up to 5000 cps. Highest sensitivity and power handling on basis of distributed signal providing superior coverage of listening area with fewer units and at far less cost.

Molded of indestructible glass fibers for extra strength and improved acoustic properties. Edge-wise wound voice coil assembly uses durable phenolic glass cloth diaphragm. Entire unit weatherproof, splash proof and blast proof. Drain holes permit subsequent operation after complete immersion. Conservatively rated at **25 watts.** 16 ohms impedance. Finished in attractive gun-metal gray. Two mounting positions for hang-up bracket. Can be installed horizontally or vertically. **Dimensions:** 10½" wide at mouth, 20½" high, 20" deep overall. Weight, 12 lbs. Shpg. Wt., 15 lbs. **Electro-Voice Model 848**—Net Each $41.70

25 WATT LINE MATCHING TRANSFORMER MODEL 876

In protective case for mounting on rear of Model 848 System. Primary taps for 25, 10, 15 and 2.5 watts with 70-volt line. Impedance taps of 45, 200, 500, 1000 and 2000 ohms. Transformer bypasses frequencies below Model 848 Horn cutoff. Case extends 3½" behind Projector when mounted. 5½" maximum diameter. Wt.: Net, 3 lbs.; Shpg., 4 lbs. **Electro-Voice Model 876**—Net Each.. $9.90

LINE MATCHING TRANSFORMER MODEL 877

Same as Model 876, but with added full-range thermal bimetallic relay for maximum protection against overload. Size: same as Model 876. Weight: Net, 3 lbs.; Shpg., 4 lbs. **Electro-Voice Model 877**—Net Each $10.50

BASS AND THERMAL OVERLOAD PROTECTOR MODEL 878

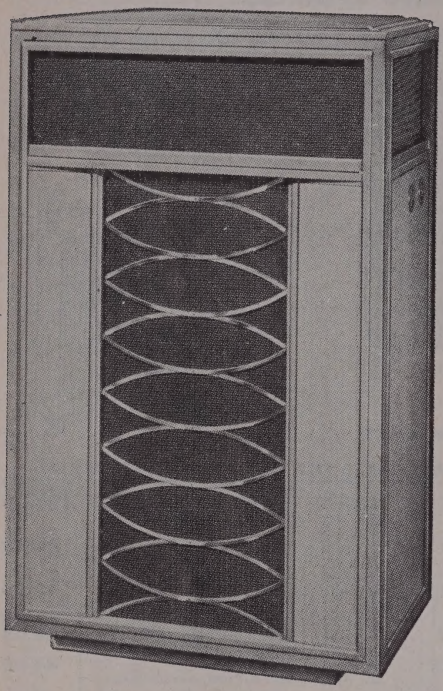
Prevents distortion and excessive diaphragm excursion due to frequencies below Model 848 Horn cutoff. Automatically reduces power to driver when 25 watt limit is exceeded. Mounted in case duplicate of Model 876 Transformer. Weight: Net, 3 lbs.; Shipping, 4 lbs. **Electro-Voice Model 878**—Net Each $9.90

JOINING KIT MODEL 879

Required for fastening multiple projectors together in any array; use one joining kit Model 879, for each additional horn. Weight, Net, 8 oz. Shipping Weight, 1 lb. **Electro-Voice Model 879**—Net Each.. $1.65

159-55A

Jensen *Hi-Fi Sound Reproducers*



Imperial

The Ultimate in High Fidelity

In the search for pure high fidelity, completely authentic, with smooth coverage of the complete frequency range from lowest bass to upper limits of audibility, Jensen designed the RS-100 Laboratory Reference Standard Reproducer (see below) for use as a standard of comparison in high fidelity. For those who pursue the ultimate, the very same reproducer is offered here as the Imperial PR-100 in cabinetry that bespeaks a place of honor in the distinguished home. There's a totally new, smooth sound, utterly real—undoubtedly the finest sound you've ever heard. Voices come to life and there's a new almost geometrical separation of instruments. A three-way system (we'd have used **six** channels if necessary, but three were far and away the best), with l-f unit loaded by a new-design reactance-annuling trilateral-mouth horn for bass; selected compression-driver horn-loaded mid-channel with intrarange equalizer for a final touch to precise balance and coloration elimination; and superlatively smooth, space-blended supertweeter top. Expensive to be sure . . . but priceless in performance. Place it on a sidewall or in a corner as you choose. Individually serially numbered, laboratory tested with signed certificate and guarantee of performance, accompanied by handsome descriptive presentation brochure. Impedance 16 ohms, power rating 35 watts. 53¼″ H.; 32⅝″ W.; 24⅜″ D. Shipping Weight 222 lbs.

PR-100 "IMPERIAL" REPRODUCER

ST-919—Selected Mahogany. Net Price..... **$525.00**
ST-918—Satin Korina. Net Price..... **535.00**

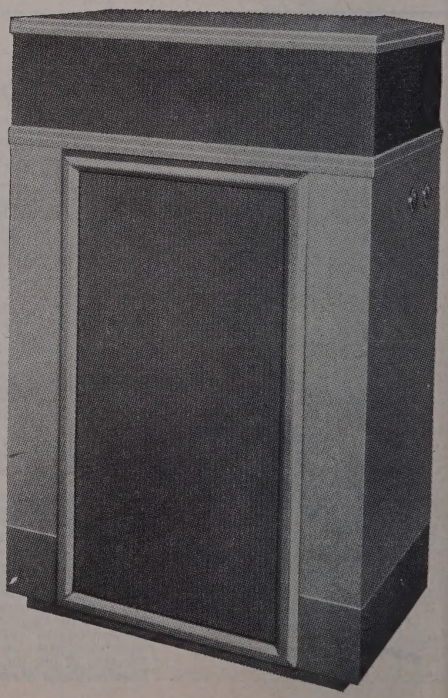
Laboratory Standard RS-100

Designed Especially for Ultra-Critical Applications

Intended especially for ultra-critical applications. Designed by the Jensen engineering staff as a reference standard for comparison of high fidelity reproduction, the RS-100 is a new and important tool for sound engineers and psycho-acoustic laboratory specialists. It also will find extremely wide application in broadcast and TV station monitoring, recording studios and other installations requiring exacting sound reproduction. Music lovers and audiophiles, too, will find ready usage for the RS-100 in experimental or permanent home tuner-amplifier-record player and tape-recorder set-ups. It embodies the same electrical and acoustical characteristics as the PR-100.

The cabinet is made of plywood—modern—artistically styled and finished in two-tone, blue gray. Each RS-100 is individually, laboratory tested and accompanied by a signed certificate and guarantee of performance, and a descriptive brochure. 52⅜″ H. x 32⅞″ W. x 24 11/16″ D. Shipping Weight: 222 lbs.

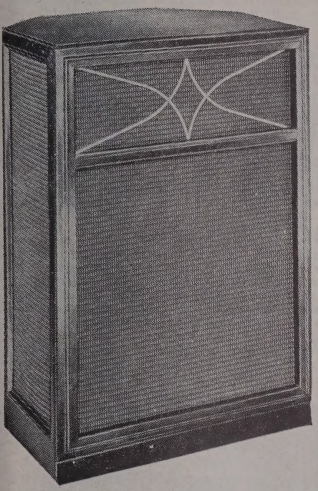
ST-920—Net Price..... **$468.00**



99X-54B

Jensen *Hi-Fi Sound Reproducers*

THE GREATER TRi-PLEX 3-WAY SPEAKER SYSTEM



Jensen's new **greater** TRi-PLEX is offered to you with the conviction that in quality of reproduction, it will outperform any comparable speaker system. Bass response has been enhanced with the new Bass-Ultraflex enclosure. The design objective has been the attainment of the full high-fidelity frequency range with extreme smoothness, precisely adjusted intra-range balance, and complete elimination of all false coloration effects. The result is a reproducer which in its outstanding listening qualities will delight the discriminating listener who seeks completely faithful music reproduction without harshness or exaggeration.

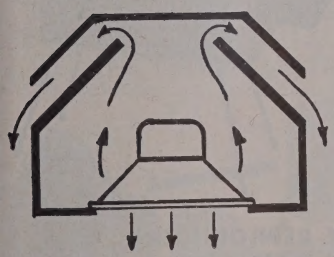
Technically, the TP-200 represents a high point in the development of the true 3-way system. Three completely independent reproducers divide the frequency range as indicated in the specifications, the combined total result being blended into a superb unity which cannot be approached with short-cut designs which simulate, but do not afford comfortable, livable listening quality. For example, both mid-frequency and high-frequency channels employ horn-loaded compression-driver units with plastic diaphragm moving systems in precision sound chambers for utmost smoothness—there are no metallic elements to introduce harsh or irritating effects. Individual controls are provided at the side of the cabinet for exact adjustment of response balance, presence and brightness to fit **your** surroundings and precise taste.

New cabinet styling is a natural blend of simplicity and elegance which will merge gracefully with traditional or modern decor. Woods are offered in a choice of fine selected Mahogany or satin Blonde Korina veneers with genuine solid matching hardwood trim, all finely crafted in the best furniture-making traditions.

Each TRi-PLEX is individually tested and is accompanied by a certificate and guarantee of performance meeting the high engineering standards established for the design.

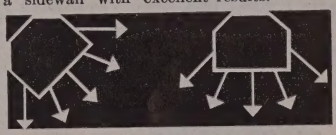
SPECIFICATIONS

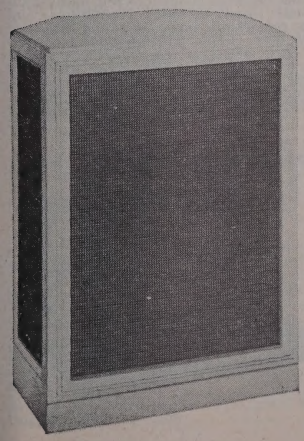
Frequency Range Rating: +8 LIM.
Input Impedance: 16 ohms.
Power Rating: 35 watts maximum speech and music signal input.
Components
High Channel: RP-302 Ultra High Frequency Unit (4,000 cycles to limits of audibility).
Mid Channel: RP-201 High Frequency Unit (600-4000 cycles).
Low Channel: P15-LL Low Frequency Unit (below 600 cycles). A-402 Crossover Network (4000 cycles). A-61 Crossover Network (600 cycles).
Controls: H-F Balance Control (in RP-302 circuit). M-F Balance control (in RP-201 circuit).
Dimensions: 38⅝" high, 26" wide, 19⅞" deep.
Shipping Wt.: 124 lbs.
Model TP-200. TRi-PLEX Reproducer **$312.70**
ST-909. Mahogany. Net Price **$316.80**
ST-908. Korina Blonde. Net Price **$316.80**



New Bass—Ultraflex. Enclosure principle used in the new TRi-PLEX TP-200, 2-way DP-100 and BL-220 and BL-250 cabinets, is the latest result of Jensen's advanced research on enclosure acoustics. Precisely matching "woofer" characteristics to enclosure volume, Bass—Ultraflex gives more true balanced bass response than previous methods employed in medium sized cabinets.

May be used either in a corner or against a sidewall with excellent results.





THE NEW *Concerto* 2-WAY SPEAKER SYSTEM

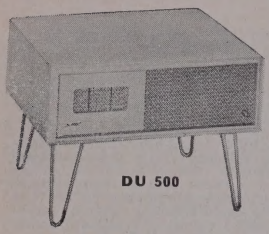
Here is high fidelity reproduction in a compact enclosure which fits even the crowded living space, yet embodying the smoothness balance and extreme frequency range coverage of the most expensive true coaxial speakers. There is economy too—with fine music reproduction not approached except at far greater cost.

The CT-100 is a true 2-way system with separate "woofer" and "tweeter". The low frequency unit is the new P12-NL 12-inch speaker which was especially designed for this reproducer. In combination with the Bass-Ultraflex cabinet, the system gives ample, full bass response. High frequencies above 2000 cycles are handled by the RP-102 High Frequency Unit which provides exceptional smoothness and range approaching the practical upper limits of audibility. A full 2-channel crossover network is employed. H-F Balance Control is located at the side of the cabinet.

The new cabinet design reflects fine proportions and clean sculptured appearance appropriate to fine traditional or modern interior decor. Available in your choice of selected Mohagany or Blonde Korina veneers. Reproducer is fully assembled and carefully tested at the factory. Shipping Weight 62 Lbs.

Model CT-100. Concerto 2-Way Reproducer **$164.50**
ST-915. Mahogany. Net Each **$168.00**
ST-914. Blonde Korina. Net Each **$168.00**

Jensen Duette Hi-Fi Reproducers



DU 500

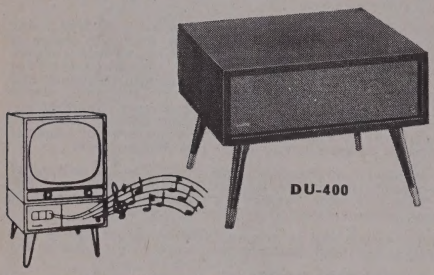
"Hear the other half of your TV programs"

NEW TV Duette

Model DU-500 TV Duette

Add **Authentic** High Fidelity to your TV. Combining the finest furniture craftsmanship with advanced acoustic design, the DU-500 TV Duette sets a new high standard of beauty and performance for compact hi-fi loudspeakers. Richly defined music and live voice quality gives you a new experience in sound. Selected genuine hardwood veneer, matching solid hardwood trim with fine lines and trim proportions, choice of Blonde Oak or Ribbon Striped Mahogany. Genuine gold plated insignia, grille bars and knob. Speaker complement consists of a special 6" x 9" oval "woofer" plus a full compression driver Hypex horn-loaded "tweeter" with frequency division system—a truly authentic hi-fi speaker system that will serve with distinction for all of your hi-fi needs. Handy "Show-Off Switch" reverts the set to the use of its original speaker and also will transfer the Duette from TV to your changer-amplifier, tape recorder or FM radio, thus allowing the TV Duette to serve all of your hi-fi speaker needs. **Size:** 24" wide, 22" deep; top 17¼" above floor. **Impedance:** 4 ohms. **Power Rating:** 20 watts.

Jensen Model DU-500 "TV-Duette".
Blonde Oak, brass hairpin legs. Shpg. Wt. 35 lbs. Net Each..... **$85.50**
Ribbon Striped Mahogany, wood legs. Shpg. Wt. 31 lbs..... **$82.50**



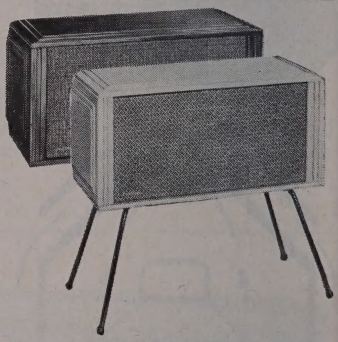
DU-400

Model DU-400 TV Duette

An expertly engineered, finely balanced hi-fi speaker system using two different specially designed speaker units in "woofer" and "tweeter" combination for full range reproduction. Brings a new dimension to TV sound . . . gives you authentic high fidelity for records, tape or radio. **Size:** 24" wide, 22" deep, 17¼" high. **Impedance:** 4 ohms. **Power Rating:** 15 watts. Has 6" x 9" oval "woofer" and 3" "tweeter". Choice of attractive finishes on genuine plywood; matching wood legs with brass ferrules.

Jensen Model DU-400 "TV Duette". Choice of Korina Blonde or Ribbon Mahogany finish. Shipping Wt. 28 lbs. Net Each..... **$49.50**

Duette Treasure Chest



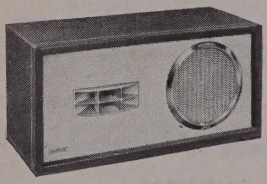
Now the Duette becomes an elegant addition to traditional or modern home decor with these new "Treasure Chest" models. Handsomely styled chest design is available in both selected Mahogany and Blonde Oak veneers with genuine matching hardwood trim. Fits on bookshelf or table in small space. For a free-standing piece, add the graceful modern wrought iron legs (not furnished—must be ordered separately).

Duette "Treasure Chest" gives the full performance of the true two-way system with its special 8-inch woofer and compression driver tweeter in an unusually compact scientifically designed acoustic enclosure. Ideal for small space hi-fi system, excellent as an improvement addition for true hi-fi from existing radio, TV, phonograph or tape recorder. Capable of adequate bass reproduction even at low listening levels. Clean, smooth response with the unmistakable presence of the true two-way reproducer. **Size:** 11" high, 23¼" wide, 10" deep. **Impedance:** 4 and 8 ohms. **Power Rating:** 20 watts.

Jensen Model DU-300 Duette "Treasure Chest" Reproducer. Net Each.... **$76.50**
(Order ST-861 Mahogany, ST-860 Blonde Oak.)

ST-862. Set of wrought iron legs. Shipping Wt. 26 lbs. Net Each..... **$4.25**

Duette DU-201



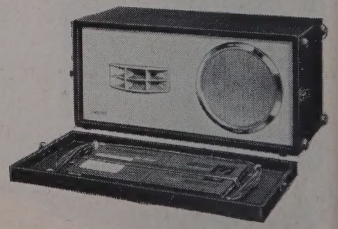
2-WAY HIGH FIDELITY REPRODUCER
Measures only 23¼" x 11" x 10"

First to give you real high fidelity in a small package . . . with the advantages of the two-way system principle, the new JENSEN "Duette" is the answer to the need for truly fine music reproduction when space for equipment is limited. Can be used on a table, in bookshelves or on the floor, either on its side or standing on end. Ideal for improving the performance of portable phonographs, radio and TV sets, as well as for a basic hi-fi system in a small space. Excellent as an additional living room speaker for spacial effects, as a pair for binaural sound and for hi-fi speaker extension. Comprises a special 8-inch "woofer" plus a multicell horn-loaded compression driver "tweeter", with built-in frequency division system, in a small compact enclosure designed for adequate bass potential. (Some bass boost is desirable under most listening conditions but more than enough is available in modern amplifiers.) Capable of adequate, satisfying bass reproduction even at low listening levels. Clean, smooth reproduction with the remarkable power handling capacity and the unmistakable "presence" of the two-way hi-fi reproducer. Corner position gives excellent performance with additional bass due to acoustic loading effect of corner. **Impedance:** 4 and 8 ohms. **Power Rating:** 20 watts maximum speech and music input. **Size:** 11" high, 23¼" wide, 10" deep. **Shipping Weight:** 24 lbs. Rich, attractive burgundy pigskin-grained Fabrikoid finished cabinet with contrasting front panel and cast metal trim burnished copper.

Jensen Model DU-201 "Duette" Reproducer. Shipping Wt. 25 lbs. Net Each..... **$62.50**

Duette PORTABLE . . . LETS YOU TAKE HI-FI WITH YOU!

Here is the first truly portable two-way loudspeaker system with "big speaker" performance . . . the Duette "Portable". Ideal for use with tape recorders, portable record players, electronic musical instruments, for band sound reinforcement . . . by professional recording engineers, lecturers, musicians and hi-fi listeners. Two rugged receptacles on back of case allow you to plug in at either 4 or 8 ohms as needed. Lid holds 25-foot cable with plug, plus handy storage for two 7" or three 5" boxes of tape held by retaining strap. "Carry tested" rattle-proof handle on end of case. Sturdy construction, yet weighs only 21 lbs.

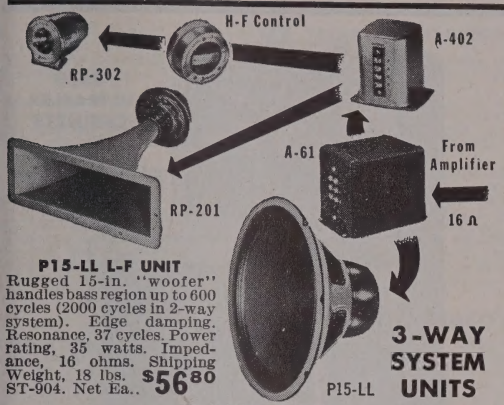


Gives the full performance of the true two-way system with its special 8" "woofer" and multi-cell horn-loaded compression driver "tweeter". Built-in frequency division system. Small, compact enclosure designed for adequate bass potential. Can be used either on its side or standing on end. **Impedance:** 4 and 8 ohms. **Power Rating:** 20 watts maximum speech and music input. **Size:** 11" high, 24¼" wide, 10" deep. Finished in black leatherette case with contrasting gray panel.

Jensen Model DU-202 Duette Portable. Shipping Wt. 27 lbs. Net Each..... **$77.50**

101-55A

Jensen *High Fidelity Loudspeakers*



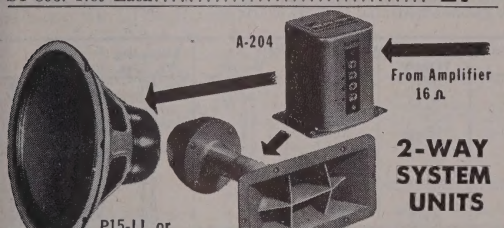
P15-LL L-F UNIT
Rugged 15-in. "woofer" handles bass region up to 600 cycles (2000 cycles in 2-way system). Edge damping. Resonance, 37 cycles. Power rating, 35 watts. Impedance, 16 ohms. Shipping Weight, 18 lbs. ST-904. Net Ea.. **$56.80**

RP-201 H-F UNIT
Reproduces the range from 600 to 4000 cycles as the mid-channel in a 3-way system. Driver unit loaded by cast aluminum Hypex horn. Coverage angle, 115° Impedance, 16 ohms. Power rating with A-61 network, 35 watts speech and music signal input to system. Shipping Weight, 8 lbs. ST-897. Net Each..... **$42.60**

RP-302 ULTRA H-F UNIT
Covers the top of the range from 4000 cycles to the highest audible frequencies with unexcelled smoothness and freedom from distortion. Coverage angle, 120°. Impedance, 16 ohms. Power rating with A-402 network, 35 watts speech and music signal input to system. Mounts in 1 11/16" hole in baffle or on bracket. Satin finish. Shipping Weight, 3 lbs. ST-899. Net Each..... **$33.60**

A-402 CROSSOVER NETWORK
Two-channel type; high pass transmits everything above 4000 cycles, low-pass everything below this frequency. 180° constant-resistance type, 4 3/8" high, 3 1/2" wide, 3 1/4" deep. Shipping Weight, 3 lbs. ST-898. Net Each..... **$8.20**

A-61 600 CYCLE NETWORK
Sends frequencies above 600 cycles to A-402 for further division; below 600 cycles to the P15-LL unit. Two-channel, 180° constant-resistance type, with 12 db/octave attenuation outside pass band. 5 1/4" high, 7" wide, 4 5/8" deep. Shipping Weight, 5 1/4 lbs. ST-896. Net Each..... **$17.50**



P12-NL LOW FREQUENCY UNIT
New, rugged 12" "woofer" especially designed for 2-way systems. Handles bass up to 2000 cycle crossover. Impedance, 16 ohms. Power rating, 25 watts. Shpg. weight, 10 lbs. ST-912. Net Each..... **$36.50**

RP-102 HIGH FREQUENCY UNIT
A new advanced design "tweeter" for use in 2-way systems crossing over at 2000 cycles. Reproduces an unusually wide range from 2000 cycles to extremely high frequencies with smooth response, excellent balance and very low distortion. Impedance, 16 ohms. Power rating, 35 watts speech and music signal to input of 2-way system when used with A-204 network. Shipping Weight, 6 1/2 lbs. ST-895. Net Each..... **$28.35**

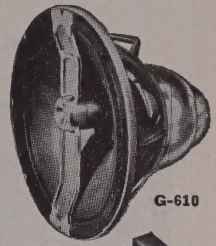
A-204 CROSSOVER NETWORK
Two-channel type, High-pass section transmits everything above 2000 cycles, low-pass, everything below this frequency. 180° constant-resistance type. 4 3/8" high, 3 1/2" wide, 3 1/4" deep Shipping Weight, 3 3/4 lbs. ST-894. Net Each..... **$13.00**

H-F & LEVEL CONTROLS
Flush satin brass cup escutcheons, appropriately marked, mounting in 1 11/16" holes, and matching bar knobs. 25" leads attached.
H-F Balanced Control. For adjusting balance of H-F Units. 16 ohms. ST-901. Net Each..... **$4.15**
Level Control. Input control to speaker. 16 ohms. ST-880. Net Each..... **$4.30**

"L" PAD CONTROLS
L-pad type, complete with pointer knob and escutcheon.
Level Control ST-276 6-8 ohms, 5-watts. Net.... **$1.80**
Level Control ST-760 3-4 ohms, 5-watts. Net.... **$2.01**
Level Control ST-761 500-600 ohms, 15 watts. Net Ea. **$3.72**
Level Control ST-411 6-8 ohms, 15-watts. Net... **$2.82**

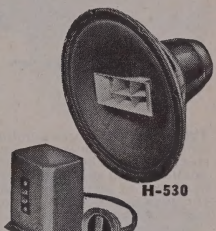
Z-3422 Autotransformer. For matching any two of 16/8/4 ohm impedances. Net Each..... **$5.15**

G-610 TRIAXIAL
The G-610 consists of 3 independently driven elements each covering a portion of the range and a Crossover and Control Network. Crossovers are at 600 and 4000 cycles. Low frequencies reproduced by a heavy duty curvilinear diaphragm unit. Mid frequency section has compression driver unit, flared cone of l-f unit acting as final section of horn. Special small h-f tweeter at front covers high end to limits of audibility. Combination smoothly covers the widest range available today! Power rating 35 watts. Impedance 16 ohms. Mounts in any cabinet for 15" speaker; BL-151 cabinet recommended for outstanding results. Baffle opening 13 3/4"; OD 15 3/8"; depth 10 3/4". Shipping Wt., 50 lbs. ST-900. Net Each..... **$252.75**

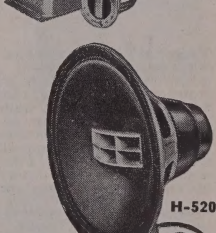

G-610

TRANSFORMERS FOR G-610
These transformers are high fidelity units, mounting directly on network chassis, with plug-in connections, to give alternate input impedances.
Model T-201—ST-846. 4 and 8 ohms. Net Each..... **$12.35**
Model T-202 — ST-847. 500-600 ohms. Net Each..... **$12.35**

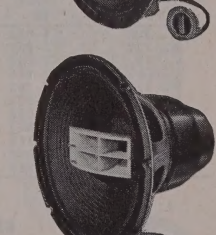
H-530 COAXIAL
In wide range extension, in the unusual degree of smoothness and the fine balance of response, this new coaxial has been acclaimed as a new milestone in speaker engineering. Low frequencies are reproduced by a highly efficient 15" L-F unit designed especially for a smooth transition in the crossover region. Upper channel is a new compression driver perfectly matched to a special H-F divided cellular Hypex horn to reproduce a wide frequency range above 2000 cycles. Impedance, 16 ohms. Power rating, 30 watts speech and music signal input. Complete with network and H-F control. Baffle opening, 13 1/4"; O.D., 15 1/8"; depth, 10 1/2". Shpg. Wt. 25 lbs. ST-893. Net Ea.. **$129.50**


H-530

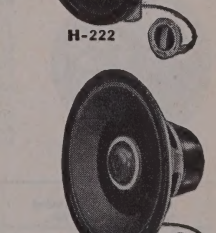
H-520 COAXIAL
A new coaxial loudspeaker with the smoothness, fine balance and wide range response you expect in a truly advanced-design 2-way system. A compression driver unit loaded by a 6-cell Hypex horn reproduces frequencies above 2000 cycles. An efficient 15" L-F unit handles the lower frequencies. Impedance, 16 ohms. Power rating, 25 watts speech and music signal input. Baffle opening, 13 1/4"; O.D., 15 1/8"; depth, 9 3/4". Shipping Weight, 16 lbs. ST-892. Net Each..... **$79.50**


H-520

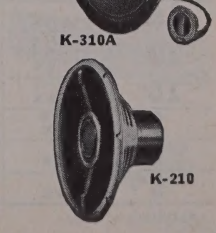
MODEL H-222 COAXIAL
Outstanding, efficient, new wide-range 12" coaxial with compression driver tweeter and 6-cell h-f horn brings a new meaning to high fidelity in a small speaker. Integral frequency division. Power rating 25 watts. Impedance 16 ohms. Baffle opening 10 1/2"; OD 12 1/8"; depth 8 1/4". Has h-f balance control on 36" cord. Shipping Weight, 12 lbs ST-875. Net Each.... **$54.50**


H-222

MODEL K-310A COAXIAL
A fine, low cost true two-way 15" high fidelity speaker that will outperform many at higher prices. Integral frequency division system. Power rating 16 watts. Impedance 16 ohms. Shipping Weight, 18 lbs. ST-891. Net Each..... **$37.60**

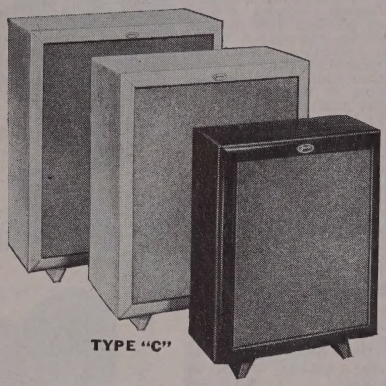

K-310A

MODEL K-210 COAXIAL
A 12" high fidelity speaker at extremely low cost. Integral frequency division system. Power rating 12 watts. Impedance 8 ohms. Shipping Weight, 7 lbs. ST-831. Net Each..... **$24.85**


K-210

Jensen *Cabinets and Enclosures*

BASS REFLEX CABINETS



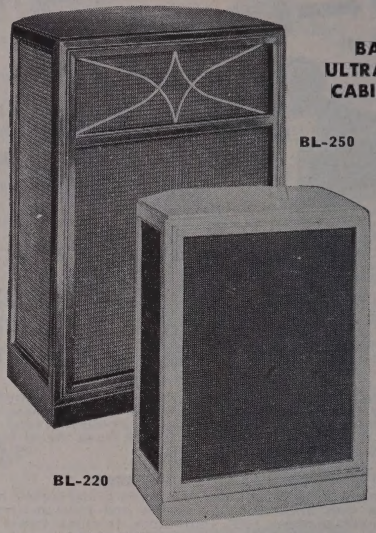
TYPE "C"

Type "C" enclosures combine acoustically correct performance with attractive modern wood cabinetry at moderate cost. A fine cabinet with Bass-Reflex for low budget high fidelity audio systems. Models to fit 8", 12" or 15" speakers, in choice of Blonde or Mahogany finishes. Two concealed cut-outs in Model C-151, one cut-out in Model C-121, for easy installation of flush H-F and Level Controls or RP-302 "Supertweeter".

Type "H" Sector Cabinet for 8" speakers, was especially designed for installations where multiple speakers are required. With front curved to a 14¼" radius, they fit anywhere—in corners, on walls, at intersection of ceiling and wall or on posts. May be mounted in pairs or clusters for wide-angle distribution. Wood composition built around a frame of solid wood. Fine furniture craftsmanship. Finished in brown lacquer. Brackets and screws furnished for mounting.

H-81

BASS ULTRAFLEX CABINETS



BL-250

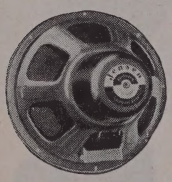
BL-220

These new Type "BL" Cabinets are beautifully-styled loudspeaker enclosures offering improved efficiency in bass response and achieving a new high in flexible adaptability to mounting of coaxial or triaxial speakers, mid-channel and high-frequency units, woofers, supertweeters, in any desired combination without sawing or cutting! All units are easily mounted from the rear of the cabinet and are concealed behind the Transacoustic plastic grille cloth. Unused pre-cut openings in front baffle are automatically blocked by adapter baffle. Easy to follow instructions make mounting a matter of moments.

The new cabinets are designed to fit in a corner or they may be placed against a sidewall. Low frequency rediation is augmented by carefully coordinated acoustic passages opening into the sides of the cabinet.

Simple yet graceful styling with finely sculptured lines qualify these beautiful cabinets for a place in distinguished modern or traditional interiors. Choice of selected Mahogany or Korina Blonde plywoods with genuine matching solid wood trim.

Jensen No.	Stock No.	Speaker Size	Finish	Dimensions Inches Height	Width	Depth	Shipping Wt. Lbs.	Net Each
BL-250	ST-856	15"	Blonde Korina	38⅝	26	19 7/16	86	$130.90
BL-250	ST-857	15"	Cordovan Mahogany	38⅝	26	19 7/16	86	128.00
C-151	ST-868	15"	Blonde Mahogany	32	28	15	53	46.35
C-151	ST-869	15"	Cordovan Mahogany	32	28	15	53	46.35
BL-220	ST-852	12"	Blonde Korina	30½	22⅝	17 1/16	48	92.50
BL-220	ST-853	12"	Cordovan Mahogany	30½	22⅝	17 1/16	48	89.50
C-121	ST-866	12"	Blonde Mahogany	29	25	13½	42	39.40
C-121	ST-867	12"	Cordovan Mahogany	29	25	13½	42	39.40
H-81	ST-141	8"	Brown Lacquer	22¾	17¾	8½	14	15.42
C-81	ST-864	8"	Blonde Mahogany	23½	20	9	26	28.75
C-81	ST-865	8"	Cordovan Mahogany	23½	20	9	26	28.75



EXTENDED RANGE SINGLE-UNIT SPEAKERS DIRECT-RADIATOR TYPE

These units, ranging from 5-inch to 15-inch size classes, attain a high level of performance by proper extension of the frequency range and control of all factors which lend "presence" to reproduction.

The selection of a direct-radiator loudspeaker from this series, in size or cost appropriate to the application, insures the best quality obtainable in a "one-way" speaker. Alternate models in the same size group differ mainly in efficiency and power rating.

JENSEN Extended Range loudspeakers are ideal as replacement-improvement units for less worthy speakers in radio, television and record playing equipment. The logical choice for better reproduction on a low budget.

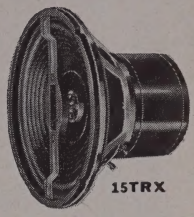
Nominal Size	Model No.	Stock No.	*Gap Energy Level	Dimensions, Inches O.D.	Depth	Baffle Open	Voice Coil Diam., In.	Imped., Ohms	Power Watts	†Transformer Size	Net Each
15"	P15-NX	ST-817	6.6	15⅛	8	13¼	1½	6-8	18.0	1" x 1"	$46.05
12"	P12-NX	ST-819	6.6	12 1/16	7	10½	1½	6-8	16.0	1" x 1"	35.25
	P12-RX	ST-885	2.2	12⅛	6 1/16	10½	1	6-8	11.0	⅞" x ⅞"	12.40
	P12-SX	ST-821	1.5	12⅛	6 1/16	10½	1	6-8	9.0	⅞" x ⅞"	11.35
10"	P10-SX	ST-823	1.5	10⅛	5¼	8¾	1	6-8	8.0	¾" x ¾"	10.54
8"	P8-RX	ST-887	2.2	8⅛	4	6¾	1	6-8	8.0	¾" x ¾"	8.50
	P8-SX	ST-825	1.5	8⅛	3 13/16	6¾	1	6-8	7.0	¾" x ¾"	7.48
6"	P6-TX	ST-826	1.1	6 11/16	3 3/16	5¼	¾	3-4	5.0	⅝" x ⅝"	5.05
5"	P5-TX	ST-827	1.1	5	2 11/16	4	¾	3-4	4.0	½" x ½"	4.90

*Millions of Ergs. †Size Recommended.

Electro-Voice Hi-Fi Speakers

TRX TRIAXIAL SPEAKERS

Concentric mounting of all elements, augmented bass response, silky HF reproduction; tailored mid-range. Includes AT37 brilliance control and X36 crossover network.

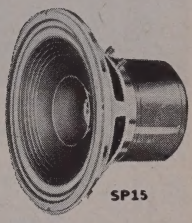

15TRX

Model 15TRX—15⅛" diameter overall. Resonance 40 cps. 30 watts. Magnet weight, 5¾ lbs. Response, ±5 db, 30-15,000 cps in recommended REGENCY enclosure. Depth behind panel, 9⅛". Mechanical crossover 2000 cps, electrical crossover, 3500 cps. Impedance, 16 ohms. Sens. rtg., 51 db. Shipping Weight, 48 lbs. With X36 and AT37. Net Each..... **$135.00**

Model 12TRX—Same as 15TRX except for overall diameter of 12⅛". Resonance, 40 cps. 25 watts. Magnet weight, 3½ lbs. Response, ±5 db, 30-15,000 cps in recommended ARISTOCRAT enclosure. Mechanical crossover, 2500 cps; electrical crossover, 3500 cps. Depth behind mounting panel, 8". Impedance, 16 ohms. Sens. rtg. 49 db. Shpg. wt., 32 lbs. With X36 and AT37. Net. **$114.00**

Model 12TRXB—Integrated 3-way assembly completely wired with AT37. Overall Diam., 12¼". Resonance, 50 cps. 20 watts. Magnet wt., 1 lb., 2 oz. Response, 35-15,000 cps in ARISTOCRAT. Mech. crossover, 2000 cps; built-in electrical crossover, 3500 cps. Depth B. P., 6⅛". Imp., 16 ohms. Shpg. Wt., 13½ lbs. X36 is not required. Net Each..... **$59.70**

RADAX COAXIAL SPEAKERS


SP15

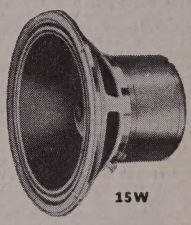
Model SP8B Radax Super-Eight—8" speaker. Resonance, 65 cps. 15-20 watts. Response, ±6 db, 35-13,000 cps. 16 ohms impedance. Sens. rtg., 44 db. Crossover, 6000 cps. 1 lb. Alnico V magnet. 8¼" diam., 7" baffle opening. 4⅜" depth behind panel. Shpg. Wt., 8 lbs. Net Each..... **$28.50**

Model SP12 Radax Super-Twelve—12" speaker. Resonance, 43 cps. 25 watts. Response, 30-13,000 cps, ±5 db. 16 ohms impedance. Sens. rtg., 48 db. Crossover, 4000 cps. 3 lb. Alnico V magnet. 12⅛" diameter, 11" baffle opening, 7½" depth behind panel. Shpg. Wt., 25 lbs. Net Each. **$57.00**

Model SP12B Radax Twelve—12" speaker. Resonance, 50 cps. 15-20 watts. Response, 30-13,000 cps ±6 db. 16 ohms impedance. Sens. rtg., 45 db. Crossover, 4500 cps. 1 lb. Alnico V magnet. 12⅛" diameter, 11" baffle opening. 5¾" depth behind panel. Shipping Wt., 10 lbs. Net Each..... **$29.70**

Model SP15 Radax Super-Fifteen—15" speaker. Resonance, 40 cps. 30 watts. Response, 30-13,000 cps, ±5 db. 16 ohms impedance. Sens. rtg., 50 db. Crossover, 3000 cps. 5¼ lb. Alnico V magnet. 15⅛" diameter, 13½" baffle opening, 9" depth behind panel. Shipping Wt., 41 lbs. Net Each..... **$78.00**

LOW FREQUENCY DRIVERS


15W

Model 12W—12" LF driver. Resonance, 40 cps. 3 lb. Alnico V magnet. 20-30 watts. 16 ohms impedance. Sens. rtg., 48 db. 12⅛" diameter, 11" max. baffle opening, 7½" depth behind panel. Shipping Wt., 25 lbs. Net Each..... **$57.00**

Model 12WK—Above, but 3.2 ohms DC (for Klipsch "K" baffles). 16 ohms. Net **$57.00**

Model 12BW—12" LF driver. Resonance, 47 cps. Used in EV 108 system. 1 lb. Alnico V magnet. 15-20 watts. Impedance, 16 ohms. Sens. rtg., 45 db. 12¼" diam., 11" opening, 6¾" depth behind panel. Shipping Wt., 10 lbs. Net Each..... **$29.70**

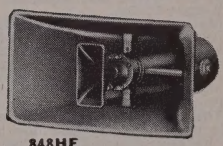
Model 15W—15" LF driver. Resonance, 30 cps. 5¼ lb. Alnico V magnet. 20-30 watts. 16 ohms impedance. Sens. rtg., 50 db. 15⅛" diam., 13½" max. opening, 9" behind panel. Shpg. Wt., 41 lbs. Net Each. **$78.00**

Model 15WK—Above, but 3.2 ohms DC, 32 cps resonance (for Klipsch "K"). Net **$78.00**

Model 18W—18" LF driver. 20-30 watts. Resonance, 27-30 cps. 16 ohms impedance. Sens. rtg., 53 db. 18¼" diam., 16½" max. opening, 10" behind panel. 5¼ lb. Alnico V magnet. Shpg. Wt., 43 lbs. Net..... **$90.00**

Model 18WK—Above, but 3.2 ohms DC, 22-24 cps resonance (for Klipsch "K"). Net **$90.00**

COAXIAL MID-RANGE DRIVER


848HF

Model 848HF—Coaxial compression type mid-bass and treble assembly, 25 watts from 300-10,000 cps. Black outer horn fed from back of a 2" phenolic driver diaphragm for fine acoustical properties; smaller metal horn works from front of same diaphragm through acoustical 1000 cps crossover. ½ lb. magnet in close tolerance gap of high flux density; impedance, 16 ohms. Sens. rtg., 51 db. Size: 20½" wide, 10½" high, 20" deep over all. Mounting hardware supplied. Shipping Weight, 15 lbs. Net Each..... **$48.00**

HIGH FREQUENCY DRIVERS

T25A

Model T10A—HF driver. 20 watts. Response ±5 db, 400-13,000 cps. Impedance, 16 ohms. Sens. rtg., 51 db. ½ lb. Alnico V magnet. 3¾" diameter, 3" deep. Throat diameter, ⅞". Shipping Weight, 5 lbs. Net Each..... **$40.50**

Model T25A—HF driver. 20-30 watts. Response, ±5 db, 400-13,000 cps. Impedance, 16 ohms. Sens. rtg., 53 db. 1 lb. Alnico V magnet. 3¾" diam., 4 1/16" deep. Throat Diam., ⅞". Shpg. Wt., 8 lbs. Net Each.... **$57.00**

SUPER SONAX VHF DRIVERS

T35

Model T35—At least one more octave of silky highs is afforded through use of T35 for high efficiency systems. Uniform response, 3500 cps to beyond audible range. Wide dispersion of 180°. Impedance, 16 ohms. Diffraction horn cutoff 1500 cps. High sens. rtg., 56 db, requires use of AT37 level control for most systems; X36 crossover also required. Horn 4½" long, 1½" wide; pot size 2 5/16" diameter, 3⅜" depth overall. Shipping Weight, 3 lbs. Net Each..... **$33.00**

Model T35B—Same as T35 but for systems with speakers using smaller magnet size. Sens. rtg., 52 db. Pot size, 1¾" diameter, 3" deep overall. Net Each..... **$21.00**

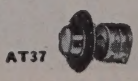
DIFFRACTION HORNS

8HD

Model 8HD Diffraction Horn—New principle provides perfect dispersion of high frequencies throughout a 120° solid angle. Actual cutoff, 600 cps; crossover, 800 cps, eliminating cutoff disturbances. Made of fiberglass. For T10A or T25A driver. 3⅜" high, 14¼" wide, 7½" deep. Mounting hardware included. Shipping Weight, 4 lbs. Net Each..... **$16.20**

Model 6HD Diffraction Horn—For systems utilizing 600 cps crossover. Horn designed with actual 400 cps cutoff; prevents response disturbances associated with operation too near actual cutoff point. Diffraction principle effects 120° dispersion. 3½" high, 19¾" wide, 12" deep. For T10A and T25A drivers. Shipping Weight, 5 lbs. Mounting hardware included. Net Each..... **$21.00**

LEVEL CONTROL

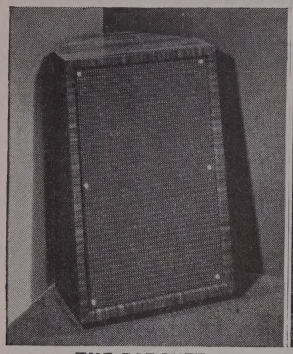

AT37

AT37 Level Control—16 ohm "L" pad. For use with Models T35 and T35B Super Sonax VHF Drivers, Models T25A and T10A High Frequency Drivers and similar applications. Adjusts output level to individual taste. Net..... **$3.50**

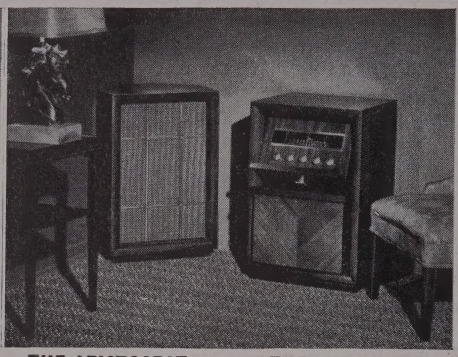
Note: Sensitivity ratings are RETMA standard.

356-54A

Electro-Voice Enclosures and Systems

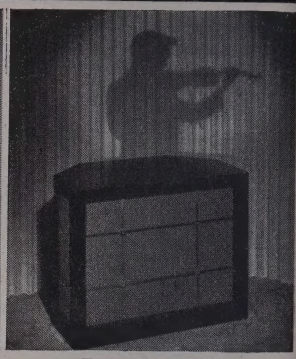


THE BARONET



THE ARISTOCRAT

THE PEERAGE



THE REGENCY

KLIPSCH LICENSED FOLDED-HORN CORNER ENCLOSURES AND SYSTEMS

NEW CONCEPTS IN COMPACT CORNER CABINETS PROVIDE EXTENDED BASS RANGE

Utilizing the Klipsch principle, EV design extends the lows, enhances the highs. Employs the room walls as an extension of the exponential horn air load—assures one full octave of added bass with unprecedented efficiency. Provides direct front radiation of higher frequencies; smoother, cleaner overall musical balance. Increases power handling capacity of any speaker.

The Baronet. For EV or other 8″ speaker. Response down to 35 cps. Conservative styling with graceful sloping front. Hand-rubbed hardwood veneers. Can be used anywhere. Size: 22⅞″ H, 14½″ W, 13¾″ D. Shpg. Wt., 24 lbs.
Mahogany Cabinet Only—Net Each $39.00
Blonde Korina Cabinet Only—Net Each $41.40

The Aristocrat. For EV or any full range 12″ speaker or EV separate 2- or 3-way systems, without modifications. Unusually smooth reproduction down to 35 cps. Selected Mahogany veneers. Brushed brass grille. Size: 29⅜″ H, 19″ W, 16⅝″ D. Shipping Weight, 38 lbs.
Mahogany Cabinet Only—Net Each $66.00
Blonde Korina Cabinet Only—Net Each $72.00

Aristocrat I. Includes EV Model 108 2-way system completely wired and installed in Aristocrat enclosure. Shipping Weight: 56 lbs.
Mahogany Complete—Net Each $179.40
Blonde Korina Complete—Net Each $185.40

Aristocrat II. Includes EV Model 111 deluxe 2-way system completely wired and installed in Aristocrat enclosure. Shipping Weight 70 lbs.
Mahogany Complete—Net Each $235.20
Blonde Korina Complete—Net Each $241.20

Aristocrat III. Includes EV Model 111A 3-way system completely wired and installed in Aristocrat enclosure. Shipping Weight: 74 lbs.
Mahogany Complete—Net Each $280.20
Blonde Korina Complete—Net Each $286.20

The Georgian. A complete 4-way system of exceptional cleanliness in handsomely styled cabinet of medium proportions. Uses Klipsch "K" indirect radiator folded corner horn with 15WK LF driver from 30-300 cps. X336 crossover feeds 848HF coaxial mid-bass and treble assembly with acoustic crossover at 1000 cps. 3500 cps section of X336 feeds T35 VHF driver to beyond audible range. Two AT37 level controls adjust presence and brilliance to balance room acoustics. Sens. Rtg. 51 db. Power Handling: 35 watts program material, 70 watts peak. Size: 53″ H, 34″ W, 26″ D. Shipping Weight, 290 lbs.
Mahogany Complete—Net Each $495.00
Blonde Korina Complete—Net Each $515.00

Model 107. Georgian outer decorative furniture housing only. Mahogany without reproducer components.
Net Each $199.80
Blonde Korina without reproducer components—Net $219.80

The Peerage Equipment Console. A beautiful and practical console designed to house any combination of the popularly known tuners, amplifiers and record changers. Simple, graceful styling harmonizes with EV speaker enclosures and lends itself to any contemporary setting. Supplied with a list of tuner, amplifier and changer combinations which can be installed. Size: 29⅝″ H, 20½″ W, 18¾″ D. Shipping Weight: 61 lbs.
Mahogany Cabinet Only—Net Each $96.00
Blonde Korina Cabinet Only—Net Each $102.00

The Regency. For EV or other 15″ speaker, or EV 2 or 3-way systems, without modifications. Has integral "built-in corner". Can be used in corner or against flat wall. Response flat ±5 db down to 30 cps. Selected mahogany veneers. Grill in brushed brass finish. Size: 28⅝″ H, 33½″ W, 19″ D. Shipping Weight: 88 lbs.
Mahogany Cabinet Only—Net Each $120.00
Blonde Korina Cabinet Only—Net Each $129.00

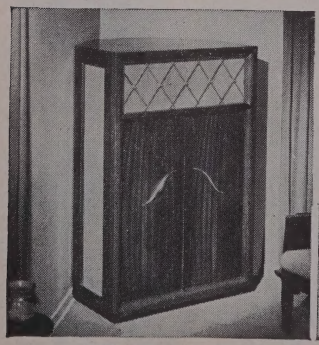
Regency II. Includes Model 114A separate 2-way system. Completely wired and installed in Regency enclosure. Shipping Weight: 135 lbs.
Mahogany Complete—Net Each $310.20
Blonde Korina Complete—Net Each $319.20

Regency III. Includes EV 114B 3-way system completely wired and installed in Regency enclosure. Shipping Weight: 140 lbs.
Mahogany Complete—Net Each $355.20
Blonde Korina Complete—Net Each $364.20

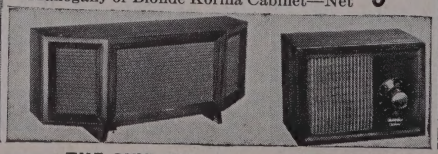
The Patrician. Complete 4-way speaker system in custom-crafted cabinet for the very finest in reproduction. Divides audio spectrum between four drivers, each specifically designed for distortion-free fidelity. Includes EV 18WK 18″ LF driver, two EV 849A LF horn sections utilizing two 828HF drivers for mid-bass, T25A treble driver with 6HD horn, T35 super-tweeter, three AT37 level controls, X2635 4-way crossover. Crossover frequencies 200, 600, and 3,500 cps. Hand-rubbed Korina Blonde or Mahogany cabinet. Size: 62″ H, 39″ W, 29⅛″ D. Shipping Wt.: 329 lbs.
Mahogany or Blonde—Net Each $772.50

The Skylark. 3-way speaker system in attractive functional design for bookcase or table use, vented with 2 tapered low frequency ports to properly load SP8C coaxial driver for excellent bass and mid-range. X36 crossover feeds T35B VHF driver from 3500 cps to beyond range of audibility. 1½ lb. magnet. Impedance 16 ohms; sens. rtg. 44 db. Size: 14″ H, 33″ W, 10¾″ D. 11¾″ H with legs removed. Shipping Weight, 30 lbs.
Mahogany Complete—Net Each $89.70
Blonde Korina Complete—Net Each $92.70

The Piccolino. Compact housing for T35 or T35B driver, X36 crossover, AT37 level control. Provides silky, extended highs for better listening. Lumite grille. Size: 6⅜″ H, 8″ W, 5⅜″ D. Shipping Weight: 6 lbs. Cabinet only.
Mahogany or Blonde Korina Cabinet—Net $9.00



THE GEORGIAN

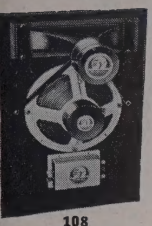


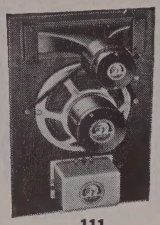
THE SKYLARK

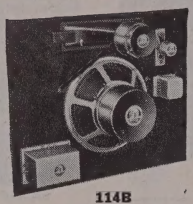
THE PICCOLINO

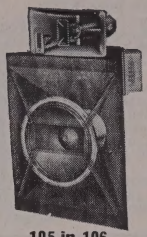
THE PATRICIAN

Electro-Voice Systems, Components


108


111


114B


105 in 106

106

SEPARATE MULTI-WAY SYSTEMS

Model 105 Package—GEORGIAN Driver Components only. Use for converting existing Klipsch speakers to 4-way loudspeaker system. Includes complete instructions for constructing "K" bass section and outer furniture housing for GEORGIAN. Consists of 15WK LF driver, 848HF coaxial mid-range assembly, T35 VHF driver, X336 network, two AT37 level controls and 8574 cable harness. Shipping Weight, 97 lbs. Net Ea. **$205.20**

Model 106—Klipsch "K" basic LF driver horn for 15WK driver unit, painted with flat matte black prime coat. Size: 38½" high, 32¼" wide, 22¾" deep. Shipping Weight, 88 lbs. As used in Georgian. Net Each..... **$90.00**

Model 108—800 cps Crossover. Separate 2-way system. Consists of 12BW LF driver, T10A HF driver with 8HD horn, X825 crossover, mounting kit and baffle board. Can be used in custom installations. Size 27" high, 18" wide, 12½" deep overall. Shipping Wt., 39 lbs. As used in Aristocrat I. Net... **$110.40**

Model 111—800 cps Crossover. Deluxe separate 2-way system. Consists of 12W LF driver, T25A HF driver with 8HD horn, X8 crossover, AT37, mounting kit and baffle board. Can be used in custom installations. Overall size 27" high, 18" wide, 13½" deep. Shipping Weight, 55 lbs. System as used in Aristocrat II. Net Each..... **$166.20**

Model 111A—Identical to 111 except with the addition of T35, AT37 and X36. Shipping Weight, 68 lbs. System as used in Aristocrat III. Net Each..... **$211.20**

Model 114A—800 cps Crossover. Separate 2-way system. Consists of 15W LF driver, T25A HF driver with 8HD horn and X8 crossover, AT37, mounting kit and baffle board. Size 26⅝" high, 32½" wide, 13½" deep. Shipping Weight, 95 lbs. System as used in Regency II. Net Each..... **$187.20**

Model 114B—Identical to 114A except with addition of T35, AT37 and X36. Shipping Weight, 107 lbs. System as used in Regency III. Net Each..... **$232.20**

CROSSOVERS

All EV crossovers use high-Q air core coils. Insertion loss less than ½ db, phase rotation 270° (135° in X825); attenuation, 12 db per octave in ¼-section crossovers.

Model X825 Crossover—As used in EV 108 system. Full M-derived ¼-section. 3 db loss point, 800 cps. Impedances, 16 ohms in and out. Size: 5" x 7" x 2". Shipping Wt., 3 lbs. Net Each..... **$18.00**

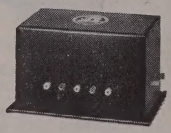
Model X8 Crossover—Full ½-section M-derived. 3 db loss point, 800 cps. Impedances, 16 ohms in and out. Size: 4⅝" x 8¼" x 5½". Shpg. Wt., 6 lbs. Net Each... **$30.00**

Model X6 Crossover—Full M-derived ½-section. 3 db loss point, 600 cps. Impedances, 16 ohms in and out. Non-metallic container measures 4 11/16" x 9¼" x 6". Shipping Weight, 7 lbs. Net Each... **$36.00**

X336 Crossover—Designed for GEORGIAN systems. Utilizes M-derived configuration. 3 db loss points at 300 and 3500 cps. Impedances, 16 ohms in and out. Non-metallic container. Size: 4 11/16" x 9¼" x 6". Shipping Weight, 9 lbs. Net Each... **$39.00**

X36 Crossover—Recommended for use with T35 and T35B. Full M-derived ½-section. 3 db loss point, 3500 cps. Impedances, 16 ohms in and out. Metal case. Size, 3 7/16" x 3⅝" x 4 7/16". Shpg. Wt., 2 lbs. Net Each..... **$8.40**

Model X2635 4-Way Crossover—Full M-derived half-sections. 3 db loss points, 200, 600 and 3500 cps. Impedances, 16 ohms in and out. Non-metallic container size, 4¾" x 10" x 8". Shpg. Wt., 11 lbs. Net Each **$72.00**

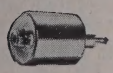


HIGH FIDELITY CERAMIC PHONO-CARTRIDGES

ULTRA LINEAR **WIDE RANGE** **HIGH COMPLIANCE**

80 Series Ultra-Linear Ceramic Cartridges—Latest High Fidelity development employs stable, temperature-proof ceramic element. Response flat ±2½ db from 20 to 15,000 cps with new standard RIAA curve. No preamplifier required; high level output works into 3-meg load at 0.5 volt. No inductive hum pickup; compliance 1.5 for clean, extended highs. Distortion less than 2%. Standard mounting includes professional lifting lever.

Model 84-D—WITH DIAMOND STYLUS (Microgroove) for 33⅓ and 45 RPM. Net Each **$23.10**
Model 84-S—WITH SAPPHIRE STYLUS (Microgroove) for 33⅓ and 45 RPM. Net Each. **$ 9.60**
Model 82-D—WITH DIAMOND STYLUS (Standard) for 78 RPM. Net Each..... **23.10**
Model 82-S—WITH SAPPHIRE STYLUS (Standard) for 78 RPM. Net Each..... **9.60**



MODEL 504 MAGNETIC INPUT ADAPTER FOR MODEL 80 SERIES CARTRIDGES

Model 504 Adapter—Required for 80 Series cartridges where only magnetic input is available. De-equalizes magnetic input and reduces output of ceramic to conform. Net Each..... **$3.60**

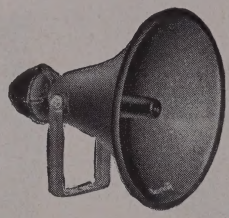
REPLACEMENT STYLII FOR MODEL 80 SERIES CARTRIDGES

1-Mil Sapphire Stylus—(Red Dot) for Model 84-S. Part No. 4127. Net Each..... **$ 1.50**
3-Mil Sapphire Stylus—(Blue Dot) for Model 82-S. Part No. 4130. Net Each..... **1.50**
1-Mil Diamond Stylus—(Orange Dot) for Model 84-D. Part No. 4146. Net Each..... **15.00**
3-Mil Diamond Stylus—(Silver Dot) for Model 82-D. Part No. 4145. Net Each..... **15.00**

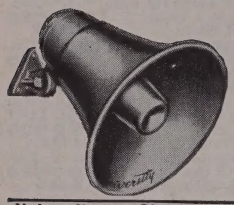
357-54A

Speakers, Horns, Tweeters by University

Reflex Horns represent the most efficient method of converting electrical power into acoustic energy, with a conversion value up to 50%. These speakers are compact and weatherproof, while maintaining maximum performance.
Built from heavy gauge metal and have corrosion resistant finish, these trumpets will withstand any degree of outdoor exposure. Mechanical vibration is eliminated by rubber damped rims. A universal "U" bracket is provided for simplicity in mounting.
The PMA adapter which fits standard ½" plumbers pipe may be used with the universal "U" bracket.



University Model	Dimensions Length	Dimensions Diameter	Low Freq. Cutoff	Shipping Weight	Net Each
GH	27⅞"	30⅞"	85 cps.	25 lbs.	$39.00
LH	19"	25⅝"	120 cps.	20 lbs.	26.70
PH	15¾"	20¼"	150 cps.	11 lbs.	18.60
SMH	12"	16¼"	200 cps.	9 lbs.	15.60
PMA	Pipe mounting adapter			2½ lbs.	.90



Paging Speakers are compact reflex horns with built in hermetically sealed driver units, and are of water and corrosion resistant construction.
Rising frequency characteristic provides high degree of intelligibility which aids penetration of surrounding noise levels.
Highly suitable for intercom systems because large ratio of sensitivity permits answering call at a distance from the speaker.

University Model	Ohms Impedance	Watts	Mounting	Net Each
CR	16	20	Swivel Bkt.	$25.20
IB8	8	12	Swivel Bkt.	19.50
IBR	8	12	Swivel Bkt.	23.40
MIL-8	8	3	Swivel Bkt.	15.00
MIL-45	45	3	Swivel Bkt.	15.75
MIS-8	8	3	Flange	12.90
MIS-45	45	3	Flange	13.65
COBRA-12	8	12	Swivel Bkt.	27.00

Breakdown Proof Driver Units are high efficiency Alnico V units, with bakelite diaphragms and dural voice coil suspension. They are hermetically sealed and waterproof and have excellent fatigue characteristics. University driver units are covered by a one year replacement guarantee.

SA-HF

MA-25

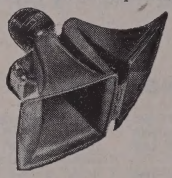
PA-30

Model SA-HF General Duty Driver—Extended range unit. Response 90-10,000 cps; power rating 25 watts continuous dut Famous for excellent reproduction quality and unusual ability to penetrate noise. Impedance, 16 ohms. Net... $21.0

Model PA-30 Driver—Heavy duty, waterproof unit, built-in lin matching transformer. Super-efficient all Alnico 5 "W" magne Response 80-10,000 cps. Power 30 watts continuous. Transform taps 16/165/250/500/1000/2000 ohms and also 30/20/10/5/2 watts for 70 volt constant voltage systems. All taps available on base. Field-replaceable diaphragm. Net... $30.0

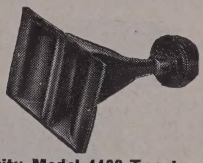
MA-25 Driver—Meets low-cost requirements. Rugged, weathe proof, suitable for all heavy duty applications where 90-6000 c is sufficient. Power rating 25 watts continuous. Impedance 16 ohms. Typical University value. Net..... $16.5

SA-30 Driver—(Not Ill.) Complete die-cast head and housing f maximum protection. Power rating 30 watts continuous, respon 90-10,000 cps. Same efficiency as SA-HF. Built-in transformer wit taps for 45/165/250/500/1000/2000 ohms, 30/20/10/5/2.5 wat for 70 volt systems. Cable entrance through "gland" nut. 16 ohms. Replaceable diaphragm. Net..... $27.0



COBREFLEX-2 REPRODUCER

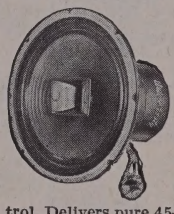
Exceptional wide angle heavy dut trumpet for general PA application Dual exponential design ensures un from 120° field pattern. 1-piece all di cast heavy gauge aluminum constru tion guaranteed for life. Low end cu off 250 cps. Fits any University drive Adjustable "U" mounting bracket. Net..... $21.0



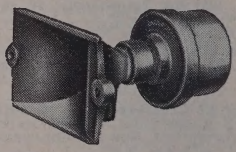
University Model 4408 Tweeter employs exclusive patented "reciprocating flares" principle, providing 120° response free from usual dips and peaks. Heavy 1-piece cast aluminum horn eliminates resonance buzzes. Driver uses heavy Alnico 5 magnet, lightweight diaphragm with dural suspension voice coil. Response 600-15,000 cps. Suitable for speaker systems with up to 15-20 watt program input. Use N-2A network. Overall ht. 5¹⁵⁄₁₆", depth 11⅜". Width 7⅜". Imped. 8 ohms. Net Each..... $18.00

Model 4409—Same as above but for systems up to 25-40 watts. 10½" D. Net..... $24.00

HIGH FIDELITY CO-AXIAL SPEAKER

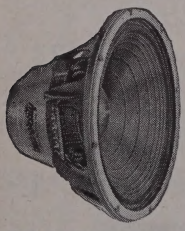


University Model 6201—Generally acknowledged top value in 12" hi-fi field. True dual-range theatre-type system with separate hi-efficiency woofer and coaxially mounted wide angle tweeter with own driver unit. Built-in LC crossover network with hi-frequency control. Delivers pure 45-15,000 cps response. 25 watt power capacity insures good transient control. Impedance 8 ohms. Overall dia. 12⅛"; depth 8¼". Net Each..... $45.00



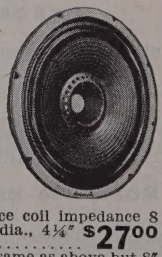
University Model 4401 is renowned a hi-fi's most unusual value in high qualit tweeters. Clean, efficient response fro 2000-15,000 cps. Impedance 8 ohm University Model N-1 filter or N-2B ne work can be used. Suitable for speake systems up to 25 watts program inpu 4½" wide, 2⅝" high, 5¹⁄₁₆" deep. Net Each..... $15.0

DUAL IMPEDANCE RANGE WOOFER



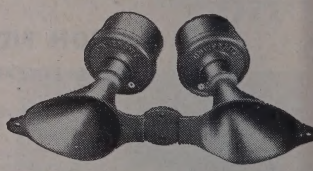
A 15" speaker that may be used in any 2, 3 or 4-way systems using woofer crossover to 2000 cycles. Can be used with amplifiers up to 50 watts in multiple-speaker systems. **Response:** to 3000 cycles. **V. C. Impedance:** 4 to 8 ohms (parallel built-in connections) or 10 to 20 ohms (series built-in connections), **Overall Diam.:** 15⅜". **Enclosure Opening:** 13⅞". **Mtg. Hole Ctrs.:** 14⁵⁄₁₆" diam., RETMA, 4 holes equally spaced of ⅜" diam. **Overall Depth:** 10¼". **University Model C-15W**—Net $75.00

DIFFUSICONE 8 AND 12



Model Diffusicone 12 is an extended range coaxial hi-fi speaker. Dual concentric horns with mechanical crossover extend response and diffuse sound uniformly. Response 45-13,000 cps; 30 watts power capacity for better transient control. Uses exclusive 1½ lb. Alnico 5 "W" magnet for exceptional efficiency. Voice coil impedance 8 ohms. 12⅛" overall dia., 4¼" deep. Net Each..... $27.00

Model Diffusicone 8 same as above but 8" speaker. 25 watts, 70-13,000 cps. O.D. 8¹⁄₁₆", depth 3⅜". Net..... $21.00



University Model 4402 dual tweeter is th most versatile device of this type on th market today. Dual horns are die-cast an compact design permits a variety of mount ing methods. Use N-1 or N-2B network.

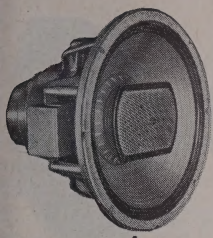
Frequency Response: 2000-15,000 cps.

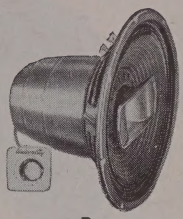
Will match woofers of 4-16 ohms imped ance, and operate with amplifiers of up t 50 watts. Cross-over: 2000 cps.
Distribution: 120° horizontal x 50° vertica Width 9½", height 2⅝", depth 5⅜". Net Each..... $24.0

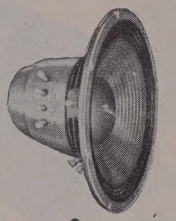
MODEL 6200 WIDE RANGE SPEAKER

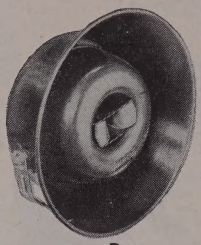
12" extended range hi-fi speaker for general use. Response 45-10,000 cps. 30 watt powe rating. All Alnico 5 "W" magnet, 2" voice coil or dural suspension. Ideal for starting hi-fi system, adding tweeter later. 12⅛" dia., 4¹⁵⁄₁₆" depth. Net..... $21.0

Hi-Fi Speakers and Systems


A


B


C


D

E

MODEL 315 15" TRIAXIAL SPEAKER (FIG. A)

No balance control is needed. C15W woofer assembly, mid-range is provided by the patented "diffusicone" device with 1000 cycle mechanical crossover, and the highs from a compression heavy duty driver unit wide angle tweeter through an L/C electrical network crossing over at 5000 cycles. Heavy, all die-cast aluminum speaker super-structure. **Overall Response:** 30 cps—inaudibility **Impedance:** 8 ohms. **Power Capacity:** 50 watts. **Dimensions:** 15½" diameter, 12" deep.
University Model 315 Triaxial Speaker—Net Each.. **$132.00**

MODEL 312 TRIAXIAL SPEAKER SYSTEM (FIG. B)

Embodies the "Diffusicone" principle and incorporates the new HF-206 Super Tweeter. Alnico 5 University "W" magnet and duraluminum voice coil suspension used in woofer section. Complete with high frequency balance control wired to 36" extension. **Response:** 40-17,500 cycles. **Power Capacity:** 25 watts. **Impedance:** 8 ohms. **Dimensions:** 12⅛" diameter, 8" deep. **$57.60**
University Model 312 Triaxial Speaker System—Net.

MODEL 308 8" TRIAXIAL SPEAKER (NOT ILL.)

An 8" 3-way triaxial speaker. Special diaphragm and voice coil assembly with all-Alnico 5 "W" magnet provides response down to 50 cycles. Full-bodied mid-range is reproduced from patented "diffusicone" device through a 1000 cycle mechanical crossover, and wide angle tweeter to 15,000 cycles through 5000 cycle electrical crossover. **Impedance:** 8 ohms. **Power Capacity:** 25 watts. **Dimensions:** 8⅞" diameter, 6¼" deep. **$36.00**
University Model 308 Triaxial Speaker—Net Each....

MODEL C12W 12" ADJUSTABLE RESPONSE WOOFER (C)

An adjustable response woofer with built-in facilities for limiting high end response to 700, 2000 or 5000 cycles. **Overall Response:** 40-6000 cycles. **Power Capacity:** 30 watts. **Impedance:** 8 ohms. All connections made to binding posts. **Dimensions:** 12⅛" diameter, 6½" deep. **$33.00**
University Model C12W Woofer—Net Each.....

MODEL C8W LOW FREQUENCY REPRODUCER (NOT ILL.)

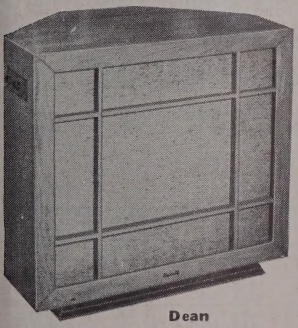
Use with University 4401 tweeter and Model N-1 high pass filter or N-2B L/C network. Can also be used with additional C8W speakers as multi-speaker woofer. Low frequency response to 50 cycles. Suitable for crossover to 5000 cycles. **Impedance:** 8 ohms. **Power Capacity:** 25 watts. **Dimensions:** 8¼" diameter, 4¼" deep. **$13.50**
University Model C8W Low Frequency Reproducer— Net.....

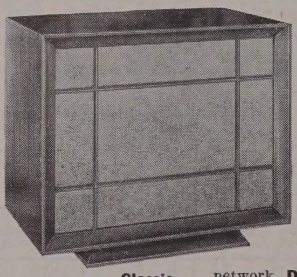
MODEL BLC WEATHERPROOF COAXIAL SYSTEM (FIG. D)

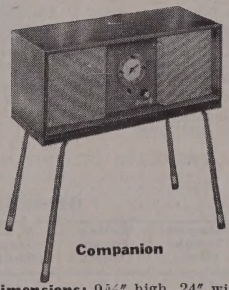
Employs same design as the WLC concert hall speaker. L-F driver in compression-type folded front horn-loaded all-aluminum rust-proof enclosure produces uniform response down to 70 cycles. Completely independent coaxially assembled driver unit type wide angle tweeter reproduces 2000-15,000 cycles. **Power Capacity:** 25 watts. **Impedance:** 8 ohms. **Dispersion:** 120° wide angle field. **Dimensions:** 22½" diam., 9" deep. **$45.00**
University Model BLC—Net Each.....

MODEL HF-206 SUPER TWEETER (FIG. E)

A completely all-new tweeter with high frequency response beyond audibility. Improved, die-cast aluminum wide angle horn based on famous University "reciprocating flares" principle. Super efficient new compression driver assembly also in die-cast aluminum casing. **Impedance:** 8 ohms. **Dispersion:** 120° horizontal and 50° vertical. **Response:** 3500-17,500 cycles. Requires 2½" x 4⅞" opening. **Overall Dimensions:** 6" wide, 6⅜" deep, 3¼" high. **$27.00**
University Model HF-206 Super Tweeter—Net Each.


Dean


Classic


Companion

EN-8

"DEAN" CORNERLESS-CORNER 3-WAY SYSTEM

C15W woofer, Cobreflex-2 with T-30 driver for mid-range, HF-206 for the highs and N-3 network crossing over at 350 and 5000 cycles. Newly designed compression type folded front-loaded horn enclosure is so independent of the walls and floor that it is truly a "cornerless corner" cabinet. **Overall Dimensions:** 36¼" high, 36" wide, 22" deep. Conservatively yet tastefully decorated, the DEAN will complement the decor of your home. **Impedance:** 8 ohms. **Power Capacity:** 50 watts. Available in Cherry Mahogany or Blonde at no extra cost. Includes continuously variable "Brilliance" and "presence" controls. **$395.00**
University Model "Dean" Speaker System—Net...
Cabinet only, Net Each.....**$231.50**

"CLASSIC" 3-WAY DELUXE CONSOLE SYSTEM

Includes same Deluxe multi-speaker system and network used in "DEAN". "Cornerless-corner" design. Simple adjustable base accommodates Classic in a vertical or horizontal position for use as Hi-Boy or Lo-Boy. Same specifications as "DEAN". **Overall Dimensions:** 34½" high, 40½" wide, 24⅜" deep. Available in Cherry or Blonde Mahogany at no extra cost. **$395.00**
University Model "Classic" Speaker System—Net...
Cabinet only, Net Each.....**$231.50**

"COMPANION" 3-WAY SPEAKER SYSTEM

Small, compact, high quality 3-way system, employing a combination woofer/mid-range and tweeter reproducers which are acoustically interconnected with a genuine inductance-capacitance dividing network. Special tonal balance control. Automatic Sessions timepiece plans your musical itinerary and shuts off automatically. **Frequency Response:** To 15,000 cycles. **Power Capacity:** 25 watts. **Impedance:** 8 ohms. 1000 cycle mechanical crossover, 5000 cycle electrical crossover. Inductance/Capacitance network. **Dimensions:** 9⅝" high, 24" wide, 10" deep. Choice of Cherry or Blond Mahogany. **$99.50**
University Model "Companion" System—Net.....
Wrought Iron Legs—Optional. Net Price.....**$6.00**

MODEL EN-8 "MIGHTY MIDGET" ENCLOSURE

Ideal for University Diffusicone-8 or Model 308 8" triaxial speaker. Made of finest hardwood veneer with attractive grille cloth. Overall height, 25⅝"; width, 18"; depth, 12". Built to enhance the quality of any 8" speaker. Blonde or Cherry. Net Each **$48.00**

N-1

N-2A

N-2B

N-3

MODEL N-1 ADJUSTABLE HIGH PASS FILTER

Provides crossover of 2500, 5000 and 10,000 cycles at 8 ohm;. 1250, 2500 and 5000 cycles at 16 ohms; 5000 and 10,000 cycles at 4 ohms. Built-in continuously variable H-F control, screw-type type terminals. **Dimensions:** 3⅝" x 3¼" x 3". Requires 2¼" hole. Fits panels to 1" thick. **$7.50**
University Model N-1 Filter—Net Each.....

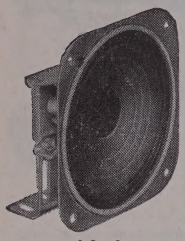
MODELS N-2A AND N-2B UNIVERSAL NETWORKS

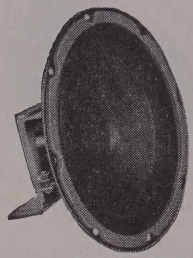
N-2B matches: 1250, 2500 and 5000 cycles at 8 ohms; 2500 and 5000 cycles at 16 ohms; 2500 and 5000 cycles at 4 ohms. **N-2A matches:** 350 and 700 cycles at 8 ohms; 350 and 700 cycles at 16 ohms; 700 cycles at 4 ohms. **Dimensions:** 3⅝"x3¼"x3".
Model N-2A—Net **$18.00** **Model N-2B**—Net.....**$12.00**

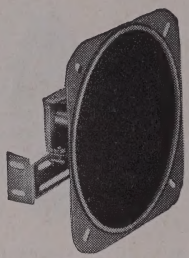
MODEL N-3 3-WAY CROSSOVER NETWORK

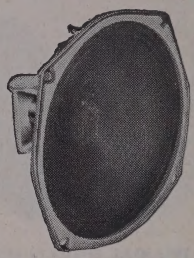
New L/C type for use with University C15W woofer, Cobreflex-2 and the new HF-206 Super Tweeter. **Crossovers:** 350 and 5000 cycles. Complete with built-in "Presence" and "Brilliance" controls wired on extension leads. **Dimensions:** 7"x 5" x 3". **$24.00**
University Model N-3 Network—Net Each.....

General Electric Speakers


4-Inch


5-Inch


5¼-Inch


6½-Inch

8-Inch

G. E. ALNICO V SPEAKERS

General Electric Permanent Magnet Speakers are newly designed to provide quality reproduction of voice and music. These are high efficiency, high sensitivity units, incorporating the latest engineering techniques.

Factory tested and inspected at each stage of manufacture, these speakers have also undergone a final inspection in a special acoustic chamber for noise and spurious response.

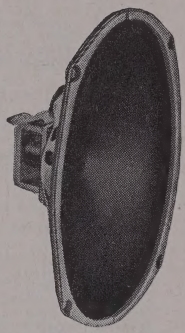
The magnets in all of these speakers are made from Alnico V with three times more energy per unit volume than the metal used in pre-war speakers.

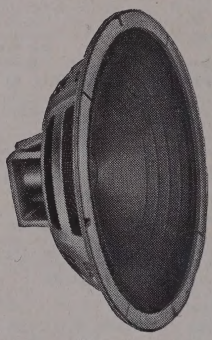
Aluminum base voice coils are used in all models. These voice coils are not subject to warping resulting from high humidity, and provide much higher power handling capacity.

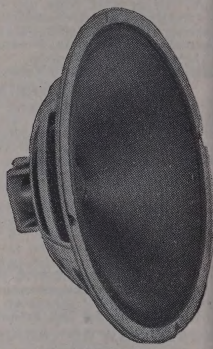
Cones are scientifically designed, molded from one piece, to assure faithful reproduction of tone and brilliant frequency response.

Special protective treatment is applied to speaker frame to preserve finish.

All weld frame construction insures rigidity and provides optimum controlled flux density.


6x9-Inch


10-Inch


12-Inch

The G-E 4″ and 5¼″ speakers employ the square housing; are compact, but have high frequency definition and full, true low notes. Ideal for table and portable radios. The G-E 5″ round speaker is designed for service replacement. Alnico V permanent magnet and 4 watt power handling capacity gives large speaker performance. Mounting brackets included with all 3 sizes.

The 6½″ and 8″ models are pin cushion types for greater sensitivity and increased power. Can handle full audio power with virtually no distortion. Faithful reproduction for medium sizes.

G-E 10″ and 12″ loudspeakers afford the ultimate in quality reproduction. Wide range of models to fit various installations. Gives full, faithful tone to quality sound systems.

GENERAL REPLACEMENT SPEAKERS

G. E. No.	Size (Inches)	Magnet Weight (Ozs.)	Rating Power (Watts)	V. C. Imp. (Ohms)	V. C. Diameter (Inches)	Resonance (Cycles)	Response (Cycles)	Baffle Opening (Inches)	Shipping Weight Lbs.	Shipping Weight Ozs.	Net Each
400D	4	1.3	4	3.2	9/16	185	140 to 7,000	3½		10	$ 2.51
402D	4	1.0	4	3.2	9/16	185	140 to 7,000	3½		10	2.28
403D	4	.68	4	3.2	9/16	185	140 to 7,000	3½		8	2.13
500D	5	1.3	4	3.2	9/16	160	125 to 8,000	4⅜		12	2.62
503D	5	.68	4	3.2	9/16	160	125 to 8,000	4⅜		10	2.25
525D	5¼	1.3	4	3.2	9/16	160	120 to 7,000	4¾		12	2.65
526D	5¼	1.0	4	3.2	9/16	160	120 to 7,000	4¾		12	2.50
527D	5¼	.68	4	3.2	9/16	160	120 to 7,000	4¾		12	2.48
625D	6½	1.3	4	3.2	9/16	140	110 to 9,000	5⅜		14	3.05
626D	6½	1.0	4	3.2	9/16	140	110 to 9,000	5⅜		14	2.83
650D	6½	2.98	8	3.2	¾	150	100 to 10,000	5⅜	1	6	3.98
703D	6x9	1.47	8	3.2	¾	100	70 to 13,000	8¾ x5½	1	12	4.25
800D	8	2.98	8	3.2	¾	100	80 to 11,000	6⅞	1	12	4.99
810D	8	6.8	12	3.2	1	100	80 to 10,000	6⅞	2	8	7.08
1012D	10	3.16	12	3.2	1	75	60 to 7,000	8¾	3	6	6.20
1200D	12	6.8	12	3.2	1	75	60 to 8,000	10¾	4	12	8.65
1212D	12	3.16	12	3.2	1	75	60 to 8,000	10¾	4	4	5.81

PUBLIC ADDRESS SPEAKERS

818D	8	6.8	12	8.0	1	100	80 to 10,000	6⅞	2	10	7.20
1218D	12	6.8	12	8.0	1	75	60 to 8,000	10¾	4	8	9.51

DRIVE-IN THEATRE SPEAKERS

400C22	4	1.3	4	3.2	9/16	200	160 to 7,000	3½		10	2.40
525C18	5¼	1.3	4	3.2	9/16	160	120 to 7,000	4¾		12	2.58

HIGH FIDELITY SPEAKERS

1201A	12	14.5	25	8.0	1¼	70	50 to 13,000	10¾	6	8	20.37
1203A	12	9.0	25	8.0	1¼	70	50 to 13,000	10¾	5	2	14.22

57-55A

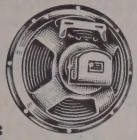
PM and EM Dynamic Speakers

ADJUST-A-CONE QUAM

A radio sounds only as good as its loudspeaker

REPLACEMENT SPEAKERS

A

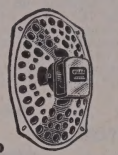

B

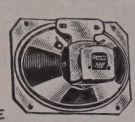
C

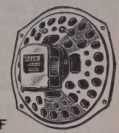
Quam speakers have been produced under the same management since 1923 and are used by leading Television and Radio set manufacturers throughout the world. The speakers listed are especially designed for replacement purposes and sound applications. RETMA standard dimensions. Fully dustproofed. Baked aluminum enamel finish. RETMA service guarantee. Universal mounting bracket supplied with all speakers up to 6½ inches and may be attached to any two of the FOUR mounting holes in the U-shaped pot. Any field resistances not listed may be obtained at no extra charge on special order. Special voice coil impedances may be obtained at **15c** additional net.

Quam No.	Size In.	Type Fig.	Magnet* oz., or Field, Ohms	Max. Watts Input	Overall Dimen. OD††	Overall Dimen. Depth	Net Each
3E45#	3½	A	450 ohms	2.5	G	1⅞	$2.64
3A07**	3½	A	.68 oz.	2.5	G	1 19/32	2.40
4E45#	4	A	450 ohms	3	H	2	2.64
4E10	4	A	1000 ohms	3	H	2	2.64
4E27	4	A	2700 ohms	3	H	2	2.64
4A07**	4	A	.68 oz.	3	H	1 23/32	2.40
4A1	4	A	1.0 oz.	3	H	2 3/16	2.55
4A15	4	A	1.47 oz.	3	H	2 3/16	2.82
5EV6	5	C	6 volt	3.5	I	2⅛	2.76
5E45#	5	C	450 ohms	3.5	I	2⅛	2.76
5E10	5	C	1000 ohms	3.5	I	2⅛	2.76
5E18	5	C	1800 ohms	3.5	I	2⅛	2.76
5E27	5	C	2700 ohms	3.5	I	2⅛	2.76
5A07**	5	C	.68 oz.	3.5	I	1⅞	2.52
5A1	5	C	1.0 oz.	3.5	I	2 5/16	2.67
5A15	5	C	1.47 oz.	3.5	I	2 5/16	2.91
52EV6	5¼	A	6 volt	4	J	2½	3.00
52E10	5¼	A	1000 ohms	4	J	2½	3.00
52A1	5¼	A	1.0 oz.	4	J	2 23/64	2.79
52A21	5¼	A	2.15 oz.	4	J	2⅝	3.42
6EV6	6½	C	6 volt	5	K	2 23/32	3.24
6EHV6	6½	C	6 volt	6	K	2 23/32	3.66
6E45#	6½	C	450 ohms	5	K	2 23/32	3.24
6E10	6½	C	1000 ohms	5	K	2 23/32	3.24
6E18	6½	C	1800 ohms	5	K	2 23/32	3.24
6E25	6½	C	2500 ohms	5	K	2 23/32	3.24
6A1	6½	C	1.0 oz.	5	K	2⅝	2.88
6A15	6½	C	1.47 oz.	5	K	2⅝	3.12
6A21	6½	C	2.15 oz.	5	K	2⅞	3.51
6A31	6½	C	3.16 oz.	6	K	3 11/64	4.05
7EV6	7	F	6 volt	7	L	2¾	4.05
7EV6A†	7	F	6 volt	7	L	2¾	4.05
7A21**	7	F	1.4 oz.	6	L	2 21/32	4.35
7A31	7	F	3.16 oz.	9	L	3 1/32	5.10
8EV6	8	C	6 volt	7	M	3 9/32	4.05
8E10	8	C	1000 ohms	7	M	3 9/32	4.05
8EH10#	8	C	1000 ohms	9	M	3 13/16	4.65
8E18	8	C	1800 ohms	7	M	3 9/32	4.05
8EH18#	8	C	1800 ohms	9	M	3 13/16	4.65
8E25	8	C	2500 ohms	7	M	3 9/32	4.05
8EH25#	8	C	2500 ohms	9	M	3 13/16	4.65
8A21	8	C	2.15 oz.	7	M	3 13/32	4.32
8A31	8	C	3.16 oz.	9	M	3 21/32	5.10
10E60#	10	B	600 ohms	10	N	5 1/16	6.30
10E10#	10	B	1000 ohms	10	N	5 1/16	6.30
10E15#	10	B	1500 ohms	10	N	5 1/16	6.30
10E25#	10	B	2500 ohms	10	N	5 1/16	6.30
10A31	10	B	3.16 oz.	9	N	4½	6.30
10A4A	10	B	4.64 oz.	10	N	4½	7.02
10A6A	10	B	6.8 oz.	12	N	4⅝	8.16
12E60#	12	B	600 ohms	12	O	5⅝	7.59
12E10#	12	B	1000 ohms	12	O	5⅝	7.59
12E15#	12	B	1500 ohms	12	O	5⅝	7.59
12E25#	12	B	2500 ohms	12	O	5⅝	7.59
12A31	12	B	3.2 oz.	10	O	4 19/32	6.81
12A4A	12	B	4.64 oz.	12	O	5⅛	7.59
12A6A	12	B	6.8 oz.	14	O	5¼	8.70
46E45#	4x6	E	450 ohms	3.5	P	2 15/64	3.18
46E10	4x6	E	1000 ohms	3.5	P	2 15/64	3.18
46E15	4x6	E	1500 ohms	3.5	P	2 15/64	3.18
46A07**	4x6	E	.68 oz.	3.5	P	1 15/16	2.67
46A1	4x6	E	1.0 oz.	3.5	P	2¼	2.85
46A15	4x6	E	1.47 oz.	3.5	P	2¼	3.09
57E45#	5x7	E	450 ohms	5	Q	3 1/64	3.60
57E10	5x7	E	1000 ohms	5	Q	3 1/64	3.60
57A1	5x7	E	1.0 oz.	5	Q	2 57/64	3.24
57A15	5x7	E	1.47 oz.	5	Q	2 57/64	3.48
57A21	5x7	E	2.15 oz.	5	Q	3 7/64	3.87
69EV6	6x9	D	6 volt	8	R	3 13/16	4.50
69E10	6x9	D	1000 ohms	8	R	3 13/16	4.50
69A2**	6x9	D	1.4 oz.	8	R	2 13/16	4.50
69A3	6x9	D	3.2 oz.	10	R	3 5/16	5.37

Voice coil impedance of above speakers is 3.2 ohms ±10%. 3½" speakers—without Adjust-a-cone suspension.
†Equipped with hum bucking coils. **Very shallow construction.
*All PM speakers use Alnico V magnets. †Rotated Pot.


D


E


F

TELEVISION SPEAKERS

All television speakers are equipped with hum-bucking coils. Many television sets require fields not enumerated below. Order exact field resistance required in these special cases. Voice coil impedance of TV speakers is 3.2 ohms, ±10%.

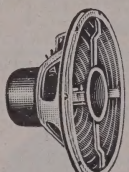
Quam No.	Size In.	Type Fig.	Magnet* oz., or Field, Ohms	Max. Watts Input	Overall Dimen. OD††	Overall Dimen. Depth	Net Each
5E62	5	C	62 ohms	3.5	I	2 1/16	$2.76
5E95	5	C	95 ohms	3.5	I	2 1/16	2.76
46E62	4x6	E	62 ohms	3.5	P	2 15/64	3.18
46E95	4x6	E	95 ohms	3.5	P	2 15/64	3.18
6E62	6½	C	62 ohms	5	K	2 23/32	3.24
6E95	6½	C	95 ohms	5	K	2 23/32	3.24

PUBLIC ADDRESS SPEAKERS

Voice Coil Impedance, Public Address Speakers: 6-8 Ohms, ±10%.

8A4	8	B	4.64 oz.	12	S	3¾	$6.12
8A6	8	B	6.8 oz.	12	S	3⅞	7.26
10A4	10	B	4.64 oz.	14	N	4½	7.02
10A6	10	B	6.8 oz.	14	N	4⅝	8.16
10A10	10	B	10 oz.	20	N	4 21/64	10.80
12A4	12	B	4.64 oz.	15	O	5⅛	7.59
12A6	12	B	6.8 oz.	15	O	5¼	8.70
12A10	12	B	10 oz.	25	O	4 15/16	11.40

*All PM speakers use Alnico V magnets. Figures shown are weight of magnet in ounces.



CO-AXIAL SPEAKERS

Designed for hi-fi reproduction. Built to same exacting standards as the Quam replacement line, these speakers give true theatre performance. The tweeter is mounted coaxially within the larger speaker on a built-in bridging network. All speakers use Alnico V magnets throughout. Full Range—50 to 15,000 cps.

Model 12A6CO—12". L.F. unit with 3" H.F. unit. Capacity, 14 watts. 6.8 oz. Alnico V magnet. V.C. Imp., 6-8 ohms. Net Each..... **$18.00**

Model 15A10CO—15". 5" H.F. unit. 6-8 ohms; 20 watts; 10 oz. magnet. Net Each..... **$28.50**

HIGH FIDELITY SPEAKERS

Recommended for maximum listening pleasure to achieve smooth wide range reproduction and low distortion. Rugged construction, adequate power handling capacity, ideal for custom installations for discriminating listeners and high-fidelity enthusiasts. High quality performance at a sensible price. Models listed below have 10 oz. Alnico V magnets, frequency response 55-12,000 cps. flat ±5 db. Impedance 6-8 ohms. Voice Coil Diameter 1".

Quam No. 8A10X. 8" PM. Input 10 w. Depth, 3¾" Net. **$11.16**
Quam No. 10A10X. 10" PM, Input 12 w. Depth, 5¼" Net. **14.40**
Quam No. 12A10X 12" PM. Input 15 w. Depth 5⅞" Net. **15.60**

TWEETERS

3A15T

5A15T

Frequency Range 2,000-15,000 cps ±10 db, 2,000-12,000 cps ±6 db, when connected to "Woofer" voice coil with 2 mfd. capacitor in series. V.C. Impedance, 14 ohms. Magnet size, 1.47 oz. Alnico V. V.C. Size, 9/16". Maximum Input, 10 watts.

Quam No. 3A15T—3½". Resonance point, 1100 cps. Depth, 2 1/16". 3½" square. Four mounting holes on 3 13/16" ctrs. Net.. **$3.45**

Quam No. 5A15T—5". Resonance point, 1400 cps. Depth, 2 5/16" 5" diam. Eight mounting holes on 4 11/16" centers. Net Each..... **$3.90**

††OUTSIDE DIAMETER AND MOUNTING CENTERS

Fig.	Diameter	Mtg. Centers	Fig.	Diameter	Mtg. Centers
G	3 15/32 square	2 25/32	N	10 5/32	9⅝
H	4 3/32 square	3⅝	O	12 3/32	11 9/16
I	4⅝	3⅝	P	6 5/32x4 3/32	4⅝x3⅝
J	5 5/32 square	4 3/32	Q	7¼x5	4 11/32
K	6 3/32 pin cushion	4⅜	R	9¼x6⅝	6 17/32x4⅝
L	7 pin cushion	4¼	S	8	7⅜
M	7½ pin cush.	5 25/64			

Copyright 1954, Electronic Publishing Co., Inc.

"CONTROLLED RELUCTANCE" CARTRIDGE

Ideal for replacement of crystal microphone cartridges in Shure cases of the Model 707A and Model 100 Series designs. Replaces cartridges in cases of other manufacturers' models of similar design, where space permits. Output level: −51 db. Practically unaffected by heat and humidity. Supplied with rubber mounting ring with diameter of 2¼"; thickness of ⅛". Overall depth of cartridge ⅞".
Model R5—Net Each.....**$6.00**

CRYSTAL MICROPHONE CARTRIDGE

The Model R7 Crystal Microphone Cartridge is available as a replacement for the cartridges in the Shure Crystal Microphones of the 707A and 708A series. High output −48 db. below 1 volt per microbar. Cartridge supplied with rubber mounting rings and mounting instructions.
Model R7—Net Each.....**$4.65**

CARBON CARTRIDGE

Model R10 Carbon Cartridge used in "CB", "100", and "120" Series Carbon Microphones. Rubber mounting rings. Easy to install.
Model R10—Net Each.....**$4.80**

TAKE-APART STAND

Model S34B. Handy low-cost stand. One twist of handle locks it securely in base for use as a table stand. Metal base, wood handle. Metal top threaded ⅝"—27. Height overall 6¹⁄₁₆". Base diameter 4½". Length of handle 5⅞". Shipping weight 1 lb. Net.....**$1.98**

Model A418—Microphone handle only. Threaded ⅝"—27. Net Each.....**81c**

CABLE TRANSFORMER

Used in conjunction with Shure Models 55, 55S, 556, 556S, and 51 Dynamic Microphones, which employ the impedance matching switch. Matches 35 to 50 and 150 to 250 ohm microphones to high impedance amplifier input. 2-foot cable.
Model A86A—Net...**$10.50**

MODERN DESK STAND

Model S36A.—Fits Shure connector-type microphones, concealing plug in base. Ideal for use with A88A Grip-to-Talk Switch. Adapter provided for other type microphones.
Model S36A—Net Each.....**$3.60**

SPECIAL DESK STAND

Model S33—Designed for use with the new Broadcast "300" Gradient[1] Microphone. Features slotted back for neat placement of cable.
Net Each.....**$9.00**

ACCESSORIES FOR "777"

Model S38 Stand—Heavy die-cast base with metal screw machine stud for connecting microphone adapter to stand base. Net **$1.98**
Model A25 Swivel Adapter—Features a long-life, high-quality swivel connector. Lined with nylon sleeve—for noise-free and scratch-free insertion and removal of mike. Net Each....**$3.30**

SHURE MICROPHONE SWITCHES

(A) (B) (C) (D)

Model A88A. (Fig. A) This rugged heavy-duty switch employs a long life, leaf-type switch element that withstands the most severe field requirements of paging and dispatching systems. Rich satin chrome. Shipping Weight, 1 lb. Net.....**$7.05**

ON-OFF PRESS-TO-TALK SWITCHES

Model A84B. (Fig. B) Momentary "On-Off" switch. Press-to-talk bakelite disc. Net Each.....**$5.10**
Model A83B. (Fig. C) Rotary-type "On-Off" switch. Quickly attached to any cable-connector type Shure microphone. Internal plug establishes connections. Bakelite arrow knob. Net..**$5.10**
Model A85C. (Fig. D) Momentary Relay-Type switch. Press-to-talk bakelite disc. Must be used with two-conductor shielded cable. Standard Shure cable-connector receptacle. Satin chrome finish. Net Each.....**$6.45**

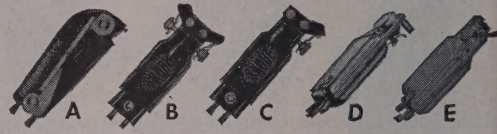
PHONOGRAPH PICKUP NEEDLES

Model No.	Description	Net Price	Model No.	Description	Net Each
A52A	Std. Osmium	$0.90	A64MG	MG Osmium	$1.20
A53MG	MG Osmium	.90	A65MG	MG Sapp.	1.50
A56U	*AP Osmium	.90	A66U	AP*Osmium	.90
A61A	Std. Sapp.	1.50	A67U	AP*Sapphire	1.50
A62A	Std. Osmium	.90	A68D	Cut.-Stellite	
A63MG	MG Osmium	.90		P.B-Osmium	1.50

*Shure "Unipoint" All-Purpose Needle.

REPLACEMENT CARTRIDGES

All Shure replacement cartridges have been painstakingly designe and engineered to meet the most exacting specifications. Each h been designed to meet certain specific requirements, such as hig output, extended range, high compliance, and maximum trackin



A B C D E

FINE GROOVE CARTRIDGES FOR 33⅓, 45 RPM RECORD

Model No.	Illus.	Output Level	Min. Needle Force	Response To	Shure Needle No.	Net Each
W21F*	C	1.5V	6 grams	10,000 cps.	A63MG	$4.6
W31AR	A	2.1V	7 grams	7,500 cps.	A53MG	3.9
WC31AR	A	.87V	7 grams	7,500 cps.	A53MG	3.9
W53MG	E	1.3V	6 grams	8,500 cps.	A64MG	5.1

TURNOVER CARTRIDGES FOR 33⅓, 45, 78 RPM RECORD

W22A	B	1.2VMG 1.4VStd.	8 grams	10,000 cps.	A65MG A61A	$6.3
W22AB	B	1.2VMG 1.4VStd.	8 grams	10,000 cps.	A65MG A62A	5.7
W22ABT	B***	1.2VMG 1.4VStd.	8 grams	10,000cps.	A65MG A62A	6.0
WC24	B	0.6VMG 0.6VStd.	8 grams	7,000 cps.	A53MG A52A	5.2
WC24-T	B***	0.6VMG 0.6VStd.	8 grams	7,000 cps.	A53MG A52A	5.5

ALL-PURPOSE SINGLE NEEDLE CARTRIDGES FOR 33⅓, 45, 78 RPM RECORDS

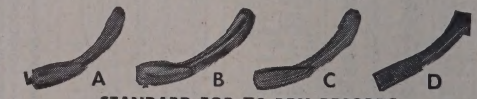
Model No.	Illus.	Output Level MG	Output Level Std.	Min. Needle Force	Resp. To	Shure Needle No.	Net Each
W26A	C	.87V	1.0V	8 grams	8,000cps.	A67U	$5.1
W26B	C	.87V	1.0V	8 grams	8,000cps.	A66U	4.5
W36B	A	2.3V	2.5V	9 grams	7,000cps.	A56U	3.9
WC36B	A	.87V	.92V	9 grams	7,000cps.	A56U	3.9
W66B	D	2.0V	2.3V	8 grams	4,500cps.	A66U	4.2

STANDARD CARTRIDGES FOR 78 RPM RECORDS

Model No.	Illus.	Output Level	Min. Needle Force	Response To	Shure Needle No.	Net Each
W23B	C	1.1V	6 grams	8,000 cps.	A62A	$4.6
WC33B	A	.92V	9 grams	7,000 cps.	A52A	3.9
W42B	E	1.3V	1 oz.	5,000 cps.	None	2.9
W42H	E	3.5V	1 oz.	5,000 cps.	None	2.9
W42BH††	E	1.5V or 3.75V	1⅛ oz.	5,000 cps.	None	3.3
W56A	E	4.3V	1⅛ oz.	6,000 cps.	None	3.9
W56N**	E†††	4.3V	1 oz.	10,000 cps.	A68D	5.1
W57A	E	1.6V	¾ oz.	6,000 cps.	None	3.3
W58A	E	1.6V	1 oz.	6,000 cps.	None	3.3
W58HS†	E	1.6V	1 oz.	6,000 cps.	None	3.9
W59A	E	2.5V	1 oz.	6,000 cps.	None	3.3
W60A	D	1.6V	1 oz.	4,500 cps.	A61A	5.1
W60B	D	1.6V	1 oz.	4,500 cps.	A62A	4.5
W60HS†	D	1.8V	1 oz.	4,500 cps.	A62A	5.1
W61B	D	1.6V	1 oz.	4,500 cps.	A62A	4.5

*With .453 Mount for Oak Changer.
**Cutter-Cartridge for Wilcox-Gay "Recordette."
†"Humi-Seal" Metal Wrapped Rochelle Salt Crystal Ideal fo Tropical Areas.
***Similar to Fig. B, except that it includes Turnover mechanism
††Dual Voltage Cartridge 1.5 V output with condenser; 3.75 V output without condenser.
†††Similar to Fig. E, except that it has a bifurcated needle for both cutting and play back.
Note: Wherever "C" appears in model no., it indicates a Ceramic cartridge.

PHONOGRAPH PICKUPS



A B C D

STANDARD FOR 78 RPM RECORDS

Model No.	Illus.	Output Level	Needle Force	Response To	Shure Cart. Used	Net Each
92H	D	3.5V	1 oz.	5,000 cps.	W42H	$3.30
93A	C	1.6V	1⅛ oz.	6,000 cps.	W57A	4.50
96A	C	4.3V	1⅛ oz.	6,000 cps.	W56A	5.10
900HS	B	1.8V	1⅛ oz.	4,500 cps.	W60HS	6.90

TURNOVER FOR 33⅓, 45, 78 RPM RECORDS

		MG	Std.				
901D	A	1.2V	1.4V	7 grams	10,000cps.	W22AB	$9.75

SINGLE-NEEDLE ALL-PURPOSE FOR 33⅓, 45, 78 RPM RECORDS

92U	D	2.0V	2.3V	8 grams	4,500 cps.	W66B	$5.85

FINE-GROOVE FOR 33⅓, 45 RPM RECORDS

902MG	B	2.0V	10 grams	7,500 cps.	W31AR	$ 6.30

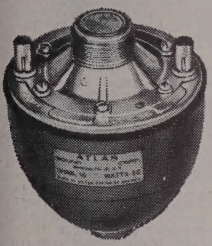
Drivers, Projectors & Mike Stands

DRIVER AND PROJECTOR UNITS

TYPE DR RE-ENTRANT REFLEX PROJECTORS

The utmost in performance is obtained from these non-resonant reflex projectors. All resonance is eliminated by the use of fibre gasket seals and special rubber rim which dampens rim vibration. The rugged construction of these units make them readily adaptable to any type of installation, indoors, outdoors, on sound trucks, etc. Bracket mounting assembly is securely fastened to a main body steel casting which guarantees long life under extreme conditions of mechanical strain. All spinnings are of weather-resistant, heavy gauge aluminum, finished in a high lustre gray enamel. Prices do not include drivers.

Atlas Model	Air Col.	Dispersion	Low Freq.	Size Dia. x Lg.	Shpg. Wt. Lbs.	Net Each
DR-32	2½ ft.	75°	175 cps.	14″ x 12″	10	$15.60
DR-42	3½ ft.	80°	135 cps.	21″ x 15″	10	18.60
DR-54	4½ ft.	90°	105 cps.	26″ x 18″	18	25.80
DR-72	6 ft.	100°	85 cps.	31″ x 25″	15	39.00



MODEL PD-V DRIVER UNITS

Shock Proof Construction—Full-Phenolic Unbreakable Diaphragms. Alnico "V-Plus" super-efficient magnetic assembly with its energy per unit volume over three times greater than any used heretofore. All drivers are magnetically shielded—hermetically sealed. Model PD-5VH is a high fidelity reproducer with new type inverted diaphragm with closely matching, phase equalizing plug to prevent internal phase cancellation. Models PD-8VT and PD-5VT include built-in Uni-Match transformers, and a new and improved wide range blastproof diaphragm of inverted dome, 1-piece construction.

Atlas Model	Frequency Range	Imp. Ohms	Power Cap.	Net Each
PD-4V	90-6000 cps	16	25 watts	$16.50
PD-5VH	80-9000 cps	16	25 watts	21.30
PD-5VT	80-9000 cps	16*	25 watts	27.00
PD-8VT	80-10,000 cps	16*	30 watts	30.00
PD-8VL	Same as PD-8VT less transformer			25.50

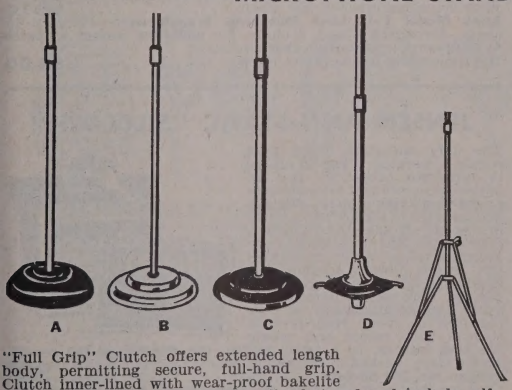
*Uni-Match transformers offer impedance matches of 160, 250, 500, 1000 and 2000 ohms or based on a 70 volt line the equivalent of 30, 20, 10, 5, and 2.5 watts; change in level in steps of 3 db.

PAGING AND TALK-BACK SPEAKERS

These speakers incorporate the same constructional features as the PD type driver units. They offer a maximum of efficiency as a reproducer, and the utmost in performance as a microphone, in talk-back circuits. Improved ball swivel mounting bracket permits quick directional adjustment. Aluminum construction, high lustre gray enamel finish.

Atlas Model	Imped. Ohms	Power Cap.	Shipping Wt., Lbs.	Net Each
HU-12	8	5 watts	3	$15.00
HU-15V	8	12 watts	7	19.50
HU-24V	8	12 watts	8	21.45

MICROPHONE STANDS AND ACCESSORIES

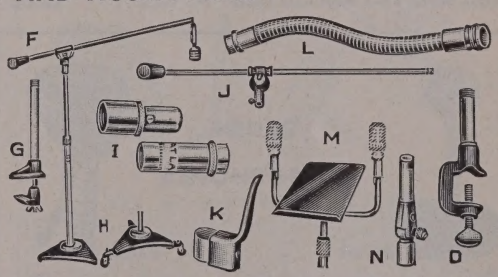


"Full Grip" Clutch offers extended length body, permitting secure, full-hand grip. Clutch inner-lined with wear-proof bakelite collet. All bases functionally designed and include self-locking collet. All bases functionally designed and include self-leveling, shock-absorbing pads, plus 3 additional "anti-tip" points between pads. Tube assemblies are "super-chrome" plated. All models terminate in ⅝″-27 machined thread.

Atlas Model	Fig.	Base Finish	Height, Adjust.	Base Diameter	Wt. Lbs.	Net Each
MS-10C	A	Gray Shrivel	35″-64″	10″	9	$ 5.85
MS-12C	A	Gray Shrivel	35″-65″	10″	12	6.30
MS-11C	B	Full-Chrome	35″-65″	10″	12	7.80
MS-20*	C	Gray Shrivel	37″-67″	12″	15	9.30
MS-25*†	D	Chrome & Gray	37″-67″	17″	24	12.90
CS-1#	E	Cadmium plate	23″-62″	Collapsible	5	9.60

*⅞″ telescoping tube, 1⅛″ base tube. †Features "Safety Air Lock Cushion" which prevents any accidental or sudden slippage of telescoping section (which is at all times "cushioned on air" and the controlled escapement of air will only permit a slow, smooth and quiet collapse. #Collapses to minimum of 23″.

BS-36 Professional Boom Stand (Fig. F)—All advantages of "Floating Action" plus secure and dependable locking adjustment. Features "Air-Lock Cushion" and new gyromatic swivel joint at mike end of boom. Base casting equipped with "domes of silence". Boom length 72″, adjustable vertically from 48″ to 72″. All tubular sections super-chrome plated. Modern base. Shpg. Wt., 33 lbs. Net Each..... $36.00



BS-36W Mobile (Fig. H)—Identical to Model BS-36 except for ball bearing hard rubber swivel caster base. Net Each.. $40.50

BC-1 Bracket Clamp (Fig. G)—Usable with BB-1, GN-13, etc. Can be removed and top flange bolted into position. Chrome tube, 6″ long. ⅝″-27 thread. Net Each..... $2.10

SO-1 "Snap-On" Microphone Attachment (Fig. I)—Permits any mike to be attached to or removed from any floor stand instantly, without threading. Ball bearing spring sleeve attachment; one section attached to mike, other to stand. Net Each..... $1.65

BB-1 "Baby Boom" Attachment (Fig. J)—Easily attached to any mike stand and locked in any position. Boom length, 32″, chrome plated. Castings in gun metal shrivel. ⅝″-32 threads. Shpg. Wt., 3½ lbs. Net Each..... $4.50

CH-1 Cable Hanger (Fig. K)—Proven necessity on every mike stand. Fits all tubes, ⅞″ to 1¼″ diam.; attached and removed by 1 screw. Chrome finished. Net Each..... $1.80

GN-13 Flexible Goose Neck (Fig. L)—Attach to any stand or fixture. Ends have ⅝″-27 male and female threads. 13″ long. Polished chrome finish. Net Each..... $1.65

GN-19—Same as above, except 19″ long. Net Each..... $2.25

TB-1 Duplex Mike Mount (Fig. M)—Use any 2 mikes on a single stand. Desk attachment and mike support arms detachable. Finishes in chrome and cadmium. Molded composition desk, 9″ x 11″. Shpg. Wt., 2½ lbs. Net Each..... $6.00

SW-1 Gyromatic Swivel (Fig. N)—Permits any mike to be adjusted and locked into any position on any floor or desk stand. Super chrome finish. ⅝″-27 male and female threads. Net..... $2.40

SK-1 Sky Hook (Fig. O)—Fastens securely to ledges, round pipes, stanchions. Has ⅝″-27 thread for any mike. Casting finish gun metal shrivel. 3″ long chrome tube. Net Each.. $2.10

Quality Sound Equipment

ATLAS SOUND EQUIPMENT

"MULTI-CELLULAR" TWEETER MODEL HR-2

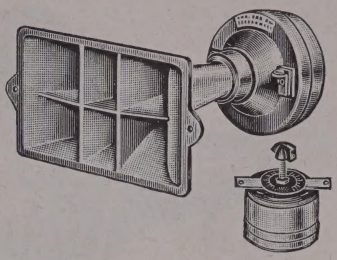
Smooth, Wide Angle Distribution

Clean and Efficient to 15,000 cps

25 Watts Program Material Above 1000 cps

Convenient Installation Flush Mounting

Two By Three Sectorial Die Cast Horn



The "Multi-Cellular" tweeter, when added to an efficient cone-type speaker, provides an extended range of clean, brilliant reproduction to 15,000 cycles. Its use will result in vibrant realism. The design of the heavy die cast sectorial horn provides a smooth and uniform sound dispersion pattern. Not a "hot" high frequency sound beam on the center axis, but a wide angle coverage in both horizontal and vertical planes. The rugged construction of this unit and its reserve power handling capacity permit its use in high powered sound systems in auditoriums as well as low level living room use. The rectangular flat front offers convenience in mounting. No complicated wiring or intricate connections. The **FN-1** high pass filter and volume control is adequate for average-type applications. It is designed so that it may be easily and conveniently mounted on the inside of the speaker enclosure. The addition of the **HR-2** and the **FN-1** will not create any electrical unbalance or noticeable mismatch when used with cone speakers of up to 15 ohms impedance. **Response**—1,000 to 15,000 cps. **Power**—25 watts above 1000 cps. **Impedance**—12-15 ohms. **Cut-off**—1000 cps. **Dispersion**—100° x 50°. **Dimensions**—6¾" wide, 3½" high, 8" deep.
Atlas Model HR-2 Tweeter—Net Each..... **$21.00**

HIGH PASS FILTER MODEL FN-1

Effectively limits frequencies below 1000 cps so that they are supplied only to the cone speaker and not to the Tweeter. This filter and volume control is designed for mounting inside the speaker enclosure with the knob on the outside. Since the 1000 cps limit is below the low frequency cutoff of the horn, phase shifts and sound distortion at the crossover region are prevented.

Atlas Model FN-1 High Pass Filter—Net Each..... **$6.00**

"COBRA-JECTOR" PROJECTOR MODEL CJ-30

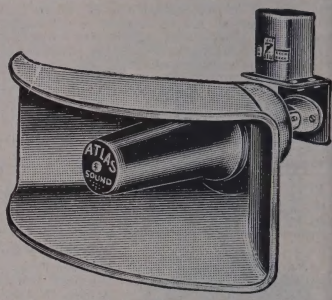
For Paging and Talk-Back, Intercom, Industrial and Marine Uses

Double-Sealed, Non-Resonant Construction

All-Weather "Polarized" and Tropicalized" Finish on All Metal Parts

"ALNICO-V-PLUS" Magnetic Assembly

100% Phenolic Diaphragm and Voice Coil Assembly



The CJ-30 "Cobra-Jector" is specially designed to cover a wide pattern and reproduce with the crisp, sharp and penetrating articulation characteristic so vital for intelligible coverage of areas of high noise level, adverse wind conditions, etc. Its extending plastic covered wire leads make for quick installation. If so desired these leads can be easily removed from the rugged internal screw terminals supplied as a part of the driver unit. Direct connections can then be made to the driver terminals. The all weather-proofed driver unit is doubly protected with a removable neoprene rubber sealed outer cover acting as a barrier to dirt, corrosion or damage to the inner terminals. The projector itself is constructed from almost indestructible "polyester fiber glass." The front opening of the horn is 14" x 6" with dispersion of 120 x 60. Length of the horn including the mounting bracket is 14". Input power (continuous) is 15 watts, and input impedance is 8 ohms. Frequency response is 250-9000 cps. A versatile mounting bracket permits quick, easy adjustment in both a vertical and horizontal position without need of changing bracket position on wall or mounting surface. The "Cobra-Jector" is illustrated above with a Model T-12 Line Matching Transformer mounted in position. This transformer is not included. Order it separately below.
Atlas Model CJ-30 "Cobra-Jector"—Less Transformer. Net Each..... **$24.00**

WEATHERPROOF LINE MATCHING TRANSFORMERS

Atlas Model T-11 Line Matching Transformer—Primary 500-1000, 1500 and 2000 ohms. Secondary 4 and 8 ohms. May be used for constant voltage (70-volt line) or constant impedance systems. With mounting bracket. Net Each..... **$5.10**
Atlas Model T-12 Line Matching Transformer—Primary 45 ohms. Secondary 4 and 8 ohms, for matching 8-ohm speakers to 40-60-ohm intercom speaker circuits.
With mounting bracket. Net Each..... **$4.80**

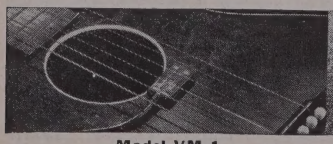
BRUSH MICROPHONES

BA-106

BA-109

Brush Model BA-106 is a high quality microphone incorporating the hermetically sealed "Acousticel"* with sintered bronze damping. "Metalseal"* crystal is used for humidity protection. Output level —50 db below 1 volt/bar. Flat from 40 to 6000 cps. Shipping Weight, 3¼ lbs. Net Each..... **$13.65**

Brush Model BA-109—Exceptionally flat response characteristics from 40 to 10,000 cps, with output of 54 db below 1 volt/dyne/cm². Pickup pattern is non-directional in horizontal plane. The improved "Acousticel" uses "Metalseal" crystal for long life. Shipping Weight 1 lb. Net Each..... **$15.00**



Model VM-1 Model BL-2

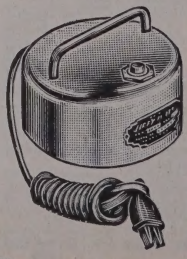
Brush Model VM-1—"Vibromike". Contact type. Freq. range 30-6000 cps. Output from .05 to .1 volt. Hermetically sealed in rubber. ⅞" x ¾" x ⅝". Shipping Weight 2 lbs.
Net Each..... **$11.70**
Brush Model BL-2—Lapel Mike. Output level —57 db (based on 1 volt/bar level). Use in hand or as instrument pickup. Size: 1½" x 2¼". With 25' of cable. Shipping Weight 2 lbs.
Net Each..... **$15.00**
*Trade Marks Registered.

JENSEN ANTI-STATIC "SILCLOTH"

The only anti-static cloth that resists recharging. Tops all others in anti-static properties. Has an anti-static effect that lasts through repeated playings. Also, Silcloth adds months to the life and fidelity of records—it actually deposits a microscopic film of silicones in the record grooves which lubricates the needle, lessens friction and eliminates annoying "pop" while playing. Thse use of this cloth prevents the accumulation of tiny particles on your records that shorten both record and needle life and destroy, to a large degree, the fidelity of the record. Single cloth, packed in individual plastic bag. **90c**

Jensen No. 200 Silcloth—Net Each..... **90c**
Counter display of 12 cloths. Per Display, Net Price..... **$9.00**

RASON TAPE DEMAGNETIZER



Eliminates wear on recording tape and heads caused by erasing. Just place the JIFFY-RASE over reel of tape to be demagnetized and move it around while momentary ON-OFF switch is pressed. Also neutralizes recording heads. For ¼", ½", 16mm or 35mm tape or film; 5", 7", 10½", 13½" or 15" reels. Works equally well on plastic or paper tape, or recording wire. Usually restores to better than original unused surface. Will clean magnetized screwdrivers, pliers or any other metal object in which magnetism is not desired. 100-130 volts AC, 25-60 cps. **Size:** 5" OD x 3½" high. **Power:** 60 watts. Drawn, polished aluminum case.
Rason Model P-30—Net Ea.. **$21.60**

701-55A

MICROPHONES SHURE

A

B

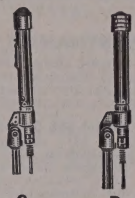

C D

FIG. A "SONODYNE" DYNAMIC

A rugged, high-output dynamic microphone. Acclaimed outstanding for all general-purpose use, including wire and tape recordings, public address and communications. Has wide range, peak-free frequency response, and semi-directional pickup characteristics. Features a multi-impedance switch for low, medium, or high impedance. Ideal for applications where long lengths of cable are required. Has 15′ two-conductor shielded cable. Frequency response is 60 to 10,000 c.p.s. High output of minus 53 db. Rich satin chrome case.

Shure Model "51"—Net Each.....**$28.50**

FIG. B "MONOPLEX" CRYSTAL

An extraordinary, "Feedback-Killing" crystal microphone with Super-Cardioid pickup pattern. A high output, undirectional microphone which ranks far above conventional crystal microphones. Has a 14 to 1 front-to-rear pickup ratio. Reduces pickup of random sound energy by 73%. High output of minus 54 db. New moisture-proof "Metal Seal" crystal for long operating life. Excellent for general purpose use. Built-in cable connector. Rich satin chrome finish. Has 15′ single cond. shielded cable.

Shure Model "737A"—Net Each.....**$25.50**

FIG. C "525" CONCERT-LINE PROBE

An exceptionally fine probe microphone of broadcast quality. It features: (1) frequency response 40-15,000 cps, ±2½ db; (2) a moving coil mounted in a highly efficient magnetic structure, "Alnico V" magnet; (3) dual-impedance switch for high or low impedance; (4) high output; (5) special "Duracoustic" diaphragm. With a 20 ft., two-conductor, rubber-covered, shielded cable with Cannon XL-3-11 connector attached; swivel adapter; adjustable lavaliere assembly (cord and clip), and a belt clip assembly. Baked bronze non-reflecting finish.

Shure Model "525"—Net Each.....**$120.00**

FIG. D "530" SLENDYNE

A probe microphone highly recommended for fine quality sound systems. It features: (1) frequency response 60-15,000 cps; (2) a moving coil mounted in a highly efficient magnetic structure, with "Alnico V" magnet; (3) dual-impedance switch for high or low impedance; (4) high output; (5) special "Duracoustic" diaphragm.

E F G

Furnished with a 20 ft., two-conductor, rubber-covered, shielded cable with Cannon XL-3-11 connector attached; swivel adapter; adjustable lavaliere assembly (cord and clip) and a belt clip assembly. The Slendyne has a beautiful black and gold finish.

Shure Model "530"—Net Each.....**$66.00**

FIG. E "SMALL UNIDYNE" DYNAMIC

World-famous for high overall efficiency (40 to 15,000 cps). Ideal for highest quality P.A., theater-stage sound systems, recording, and remote broadcasting. Widely used for fixed-station use in police, fire and transportation services. Immune to abnormal atmospheric conditions and severe mechanical shock. Both models feature a Multi-Impedance switch for low, medium or high imped.

Shure Model "55S" (General purpose)—Net Each....**$45.90**
Shure Model "556S" (Broadcast)—Net Each..... **66.00**

FIG. F HIGHER FIDELITY GRADIENTS

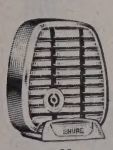
A high-fidelity gradient ribbon microphone. Bi-directional pickup pattern provides smooth peak-free response—50 to 12,000 cps. Reduces pickup of random noises by 66%. Finished in a rich, soft chrome. Both models feature a Multi-Impedance switch for low, medium or high impedance. Model "300" (40 to 15,000 cps) has a Voice-Music switch and a special "Grayje" non-reflecting finish. Has Cannon connector and special vibration-isolation shock mount.

Shure Model "315" (General Purpose)—Net Each....**$47.70**
Shure Model "300" (Concert-Line)—Net Each..... **81.00**

FIG. G "333" CONCERT LINE

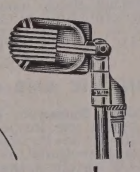
Created for discriminating users with the most exacting professional requirements. An ultra-cardioid, unidirectional—will reduce the pickup of random noise by 73%—prevents the pickup of moving props, scuffling feet and moving "dollies". Patented "Uniphase" system. Horn-loaded ribbon transducer provides efficient, smooth response ±2½ db, 30-15,000 cps. Multi-impedance switch; voice-music switch; anti-"Pff", anti-blast filter screen; high output; sturdy, die-cast one-piece metal case; self-adjusting "lifetime" swivel; vibration-isolation unit mounted in live rubber; Cannon XL connector. Baked bronze non-reflecting finish. 1⅛″ w., 3⅛″ h., 1¾″ d.

Shure Model "333"—Net Each.....**$150.00**


H

I

J


K L

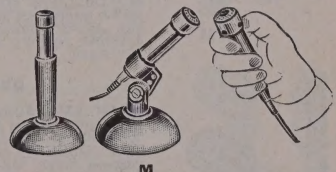

M

FIG. H "HERCULES"—CONTROLLED RELUCTANCE

Popular Controlled Reluctance hand-held unit that can also be used on a desk or stand. Provides exceptional ruggedness, clear reproduction and high output—at an amazingly low price. Recommended for announcing and mobile Public Address systems; communications; home recordings; inter-communications and for all general purpose use where humidity is the problem. High impedance obtained without transformer. Frequency response 100 to 7000 c.p.s. Has 5′ shielded cable with green metallic finish die-cast case.

Shure Model "510C"—Net Each.....**$ 9.00**
Shure Model "510S" (with switch)—Net Each..... **10.20**
Shure Model "710A" Crystal—Net Each..... **6.57**
Shure Model "710S" Crystal (with switch)—Net Each **7.77**

FIG. I "LAPEL" CRYSTAL

Here is a popular microphone that is a favorite with lecturers everywhere. Provides high intelligibility reproduction for public address portable transmitters and all general use. Pressure actuated diaphragm-type crystal microphone. Graphoid Bimorph crystal, moisture seal. Unit weighs only 1½ ounces. Frequency response (40 to 6000 c.p.s.) accentuated for maximum intelligibility. 1⅞″ diameter. Pearl gray finish. Has 20′ shielded-single-conductor cable. Output level: minus 57 db.

Shure Model "76B"—Net Each.....**$16.20**

FIG. J "GREEN BULLET"—CONTROLLED RELUCTANCE

Provides unusually good quality music and speech reproduction at moderate cost. Practically immune to the effects of high temperatures and humidity. Features high output, good response, high impedance without the need of a transformer. Beautiful modern metallic green finish with a plated grille. Frequency response 100 to 7000 cps. Has 7′ single-conductor shielded cable. 5⅛″-27 thread.

Shure Model "520"—Net Each.....**$11.70**
Shure Model "707A-7" Crystal—Net Each..... **10.17**

FIG. K "100" SERIES CARBON

High quality carbon microphone specially designed for mobile equipment. Adopted as a standard microphone by leading manufacturers of police transmitters. Heavy duty switch for push-to-talk performance. Coiled-cord cable.

Shure Model "101C"—Net Each.....**$16.50**
Shure Model "102C"—Net Each..... **16.50**
"Ranger" Controlled Reluctance—Ideal for mobile communications, hams, audience participation shows, etc. Frequency response is 100 to 9000 cps. The low-impedance Model 505B is especially recommended for use with long lines.

Shure Model "505B"—Low Impedance. Net Each....**$17.70**
Shure Model "505C"—High Impedance. Net Each.... **17.70**

FIG. L 708A "STRATOLINER" CRYSTAL

Here's a year-in, year-out favorite—an expensive-looking crystal microphone at moderate cost. Features wide-range peak-free response for good reproduction of both voice and music. High output of −53 db. Placed horizontally, the 708A is semi-directional Swivel permits 90° tilting of the microphone so it can be aimed at the source of desired sound. Bimorph Crystal. Standard thread ⅝-27. Frequency response is 60 to 8000 c.p.s. Pearl gray finish. High impedance.

Shure Model "708A-7"—Net Each.....**$17.70**

FIG. M "777" SLIM-X CRYSTAL

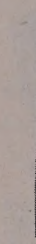
Rugged little microphone, weighing only 6 ounces, designed for good quality voice and music reproduction. Its versatility and "Handability" make it ideal for low-cost P. A. Systems; Home Recording; Hams and General Purpose use. The "777" can be removed from either cradle or swivel—simply by lifting it out of the holder. Smooth frequency response −50 to 10,000 cps; specially-sealed crystal element for long operating life; high impedance; output level −61 db; 7′ single conductor cable, disconnect type. Finish: rich satin chrome overall. **Note:** All Models supplied with a lavaliere cord.

Shure Model "777"—Net Each.....**$12.60**
Shure Model "777S"—With switch. Net Each..... **13.80**
Models 777 and 777S are supplied with a cradle adapter for microphone desk or floor stand use.

Electro-Voice Microphones

BROADCAST—TV DYNAMICS

E-V engineering brings new, versatile high-output designs in keeping with current requirements for better TV-broadcast flexibility and quality. Unique Variable "D" cardioid principle delivers greater front-to-back discrimination, ultra wide range with rugged single dynamic element. Slim-Trim omnidirectional, close tolerances.


655

654

Model 655 Slim-Trim TV Dynamic—Freq. Response 40-20,000 cps. Output level −55 db. Excellent level affords high signal-to-thermal noise ratio. Pop-proof head. Use on stand, in hand or on boom. Easily concealed in studio props. Acoustalloy diaphragm. Impedance 250 ohms, easily changed to 50 ohms. Cannon UA-3 connector. ½" pipe thread. 11⅜" L, 1" dia., 18' cable. Net Wt., 11 oz. Net..... **$120.00**

Model 654 Slim-Trim Broadcast Dynamic—Freq. Response 50-16,000 cps. Output level −55 db. Recessed selector provides 50 or 250 ohms. Built-in Cannon XL-3 connector. Acoustalloy diaphragm. ⅝"-27 thread. 18' cable. 10" long with stud, 1" diam. Net Weight, 15½ oz. TV gray enamel. Net..... **$57.00**

635

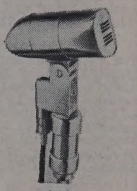
Model 635 Broadcast Dynamic—Compact, rugged, versatile. Omnidirectional. Response, 60-13,000 cps. Output level −55 db. 50-250 ohms impedance selector. Head tilts through 90° arc. Acoustalloy diaphragm. Built-in Cannon XL-3 connector. ⅝"-27 thread; size, 2" x 6¼". Satin chrome finish. 18' cable. Net Wt., 1½ lbs. Net Each.. **$45.00**

Model 666 Super Cardioid—Uses Variable "D" principle. Front-to-back discrimination of 24 db. Shock-resistant. Response 30-15,000 cps; output −57 db. Reverberation reduction increases working distance by 1.7:1. Use on boom, stand or in hand. 50 ohms impedance, taps at 150 and 250. TV gray case. Built-in Cannon UA-3 connector. Clamp-on stand mount, ⅝"-27 thread, ½" pipe thread adapter, 20' cable. 7½" x 1¾" diam. 11 oz. Net..... **$147.00**

666

646

Model 646 Lavalier Dynamic—For chest, desk or hand use. Neck cord and support clips supplied. Response 40-15,000 cps; output level −57 db. Choice of either 50, 150, 250 ohms imped. Omnidirectional. Acoustalloy diaphragm. Built-in connector. Gray enamel. 30' cable. 6¼" x 1" diam. Net Wt. less cable 7 oz. Net..... **$84.00**


650

Model 650 Broadcast Dynamic—Response 40-15,000 cps. Output level −48 db. Dual-type external shock mount. 50 or 250 ohms. Tiltable head. Satin chrome finish. Cannon XL-3 connector. ⅝"-27 stand coupler. 18' cable. Size inc. stud, 2¼" x 4⅝" x 5¼". Net Wt., inc. shock mount, 3 lbs. Net.. **$90.00**

CARDIOID UNIDIRECTIONAL MICROPHONES

E-V Mechanophase principle provides wide-range front pick-up—dead at rear. Solves difficult sound pick-up problems—assures finer, clearer reproduction of voice and music—simplifies microphone and speaker placement—increases pick-up range—permits higher volume levels. Tiltable head. Satin chrome. ⅝"-27 thread, 18' cable.

731

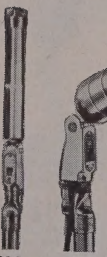
Model 726 Dynamic (Cardyne I)—Response 50-8000 cps. Output level −55 db. Hi-Lo impedance selector, built-in MC-3 connector, On-Off switch. Net Wt. 2 lbs. 6 oz. Net Each..... **$45.00**

Model 731 Dynamic (Cardyne II)—Flat response 40-10,000 cps, output level −52 db. Dual-type external shock mount. Hi-Lo impedance selector. Built-in Cannon XL-3 connector. On-Off switch optional. Net Wt. 2½ lbs. Net Each..... **$57.00**

Model 950 Cardex Crystal—First high level cardioid crystal mike with Dual Frequency Response—Flat response for wide range pick-up (output −57 db) or rising characteristic for extra crispness (output −50 db). Hi-Z; fully enclosed Metal Seal crystal. Built-in MC-1 connector. On-Off switch. Size 2½" x 2⅞" 6¼", inc. stud. Net Weight, 1 lb., 2 oz. Net Each..... **$25.50**

950

DYNAMIC AND CRYSTAL MICROPHONES


636 630

Model 636 "Slimair" Dynamic—For PA, recording and general use. Response 60-13,000 cps, output −55 db. Pop-proof head, Alnico V, omnidirectional. Wide pick-up range. On-Off switch optional. Satin chrome finish. Tiltable head. Built-in MC-4 connector. ⅝"-27 thread. 18' cable. 10¼" long inc. stud. Hi-Z or Lo-Z by changing wire in connector. Net Each..... **$42.00**

Model 636 G—Gold finish. Net **$48.00**

Model 630 High Fidelity, High-Output Dynamic—Famous for quality at low cost. Response 60-11,000 cps; output level −55 db. Unaffected by heat or humidity. Acoustalloy diaphragm. Tiltable head. Built-in MC3 connector. On-Off switch. Satin chrome finish. Avail. in 50, 250 ohms or Hi-Z. Size 2" x 6¼". 18' cable. Net Wt. 1 lb. Net..... **$28.20**

647

Model 647 P.A. Lavalier Dynamic—For chest, desk or hand use. With neck cord, support clips and 18' cable. Omnidirectional. Response 60-13,000 cps; output level −57 db. Avail. in 150 ohms or Hi-Z. Acoustalloy diaphragm. Built-in connector. Black anodized finish. 5" long, 1" dia. Net Weight, less cable, 4 oz. Net Each..... **$48.00**

623

Model 623 Slim Dynamic—Ideal for PA, recording and general use. Use on stand or in hand. Omnidirectional. Response 65-9000 cps; output level −56 db. Hi- or Lo-Z by changing wire in connector. Pressure cast; satin chrome finish. Tiltable head. On-Off switch. Built-in MC-4 connector. ⅝"-27 thread. 7½" x 1⅝". 18' cable. Net Weight 15 oz. Net Each..... **$29.70**

Model 611 "Mercury" Dynamic—For general sound pick-up. Response 50-8000 cps; output level −55 db. Nondirectional. Acoustalloy diaphragm. Tiltable head. On-Off Switch. Built-in MC-3 connector. ⅝"-27 thread. Satin chrome finish. Avail. in 50, 150, 250 ohms or Hi-Z. Lo-Z balanced to grd. 2⅜" x 3½" x 6¼" inc. stud. 6' cable. Net Wt. 1¼ lbs. Net..... **$21.30**
Available with 18' cable, Net **$22.50**

611

Model 920 "Spherex" Crystal—All-direction pick-up. Response 60-7000 cps; output level −50 db. Strong wire-mesh head acoustically treated for wind and moisture protection. High capacity, moisture sealed crystal. Hi-Z. Satin chrome. ⅝"-27 thread. Diam. 2¼". 18' cable. Net Weight 8 oz. Net Each..... **$13.50**

920

Model 926 Slim Crystal—Level and response ideal for general purpose use. Response 70-8000 cps; output level −60 db. Hi-Z. Pressure cast case, satin chrome finish. Tiltable head. ⅝"-27 thread. 6¾" x 1⅝". 18' cable with integral strain relief. Net Wt. 11 oz. Net Each..... **$14.70**

926

Model 924 Lavalier Crystal—Unique crystal lavalier for chest or hand use. Supplied with neck cord, support clips and 18' cable. Satin chrome finish. Wire-mesh head acoustically treated for wind and moisture protection. Output −60 db. Response 70-8000 cps. Hi-Z. 3⅛" x 1⅛". Cable has integral strain relief. Net Wt. 8 oz. Net Each **$10.80**

924

WRITE FOR INFORMATION ON OTHER E-V MICROPHONES, STANDS AND ACCESSORIES
220-55A

Electro-Voice Microphones

DYNAMIC, CRYSTAL AND VELOCITY MICROPHONES

V2A

Model V-2A Velocity—Superb bidirectional pickup and reproduction of voice and music. Response 40-10,000 cps. Output level −54 db. Zero pick-up at sides, top and bottom. Acoustalloy diaphragm. Choice of 50, 250 ohms or Hi-Z. Internal shock absorber. Locking cradle. On-Off switch. Built-in MC-3 connector. ⅝"-27 thread. 18' cable. Size 3½" x 2¾" x 8" including stud. Net Weight 2½ lbs. Net Each..... **$39.00**

605

Model 605 Durable Dynamic—For dependable, general purpose use. Response 65-7500 cps. Output level −55 db. Nondirectional, becoming directive at higher frequencies. Acoustalloy diaphragm. Head at 22° fixed tilt. Built-in MC-1 connector. Satin chrome. Choice of 50, 250 ohms or Hi-Z. Low impedance not balanced to ground. Net Weight, 12 oz.

Model 605-8—With 6' cable. Net..... **$16.50**

Model 605-20—W/20' cable. Net..... **$17.70**

Multi-Purpose Century—Use in any position—in hand, on table, on stand or overhead. Nondirectional. Pressure cast satin chrome-finish case. Rugged, lightweight. 3" x 2⅛" x 1". With ⅝"-27 adapter. AC-DC insulated.

915

Model 915—Moisture sealed crystal. Response 60-7000 cps. Output −50 db. Hi-Z. 5' cable. 10 oz. Net..... **$6.75**

Model 915-S—With switch. Net **$7.80**

915 on 415

Model 615 "Century" Dynamic—Acoustalloy diaphragm. Withstands temperature extremes, corrosion and shock. Response 100-6000 cps; output −55 db. 50 ohms or Hi-Z. Lo-Z not balanced to ground. 5' cable. 10 oz. Net Each..... **$11.70**

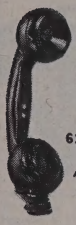
Model 715 "Century" Ceramic—Ceramic element. 80-7000 cps, output −59 db. Hi-Z. 5' cable. 6 oz. Net.... **$6.75**

Model 415 Reclining Desk Stand—Mounts Century at 15° tilt. Satin chrome. 2⅝"x2¾"x1". 4 oz. Net **$1.02**

912

Model 912 Crystal—Hand-held. Gray Styron case. Response 60-7000 cps. Output −50 db. Hi-Z. 3" x 2¼" x 1⅜". 5' cable. 4 oz. Net..... **$4.95**

DIFFERENTIAL AND SPECIAL PURPOSE MICROPHONES


622SKK

Model 622SKK Dynamic Handset—For paging, intercom and communications. Light, sturdy bakelite, 250-ohm magnetic receiver with response 200-4000 cps. Switch closes mike and relay circuit. Response 100-6000 cps, output level −55 db. Imp. 250 ohms. 5' 5-conductor cable. Net Each **$46.80**

Model 805 Contact—For guitar, banjo, etc. Hi-Z. Sealed crystal. Chrome finish. 15' cable. Net. **$11.85**

805

Model 606 Differential Dynamic—Close-talking, noise-cancelling. Response 100-6000 cps. Output (at ½') −55 db. Acoustalloy diaphragm. Head at 22° fixed tilt. ⅝"-27 thread. Built-in MC-1 connector. Satin chrome. 2" x 3¼" x 2⅛" inc. stud. Choice of 50, 250 ohms or Hi-Z. Low impedances not balanced to ground. 18' cable included. Net Each..... **$27.00**

606

Model 600D Dynamic Mobile-Mike—Lightweight, hand-held, extra-rugged. Output −55 db. Press-to-talk switch. Acoustalloy diaphragm. 2¼" x 2" x 4". 50, 250 ohms or Hi-Z. 5' cable. Net Wt. less cable 8 oz. Net.. **$23.10**

600D

Model 600DL—Similar to 600D, including locking switch. Net..... **$24.00**

Model 210KK Carbon—Similar to Model 600D but single-button carbon. Output −50 db. Press-to-talk switch. 5' coiled cord. Net Each..... **$19.50**

205KK

Model 602 Differential Dynamic—Similar to 600D but close-talking, noise cancelling. Net Each..... **$29.70**

Model 205KK Differential Carbon—Close-talking, noise cancelling, single-button carbon. Net Each..... **$25.50**

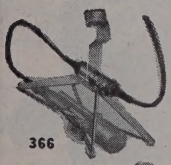
Model 205 STC—CAA Type approved certificate No. 1040 with coiled cord. Net Each..... **$30.00**

Model 205 STCP—Similar to above with WE-309 plug. Net Each..... **$35.25**

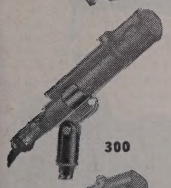
208

Model 208 Differential Carbon—Single-button Noise-cancelling Carbon. Blastproof. Press-to-talk switch. Output −50 db. Net Each..... **$9.90**

MICROPHONE ACCESSORIES


366

Model 366 Suspension Shock Mount—Extremely light boom suspension shock mount. Combined weight of 366 and 666 microphone is 17 oz. Designed for use with 666 microphone. No tools required for installing mike. Pigtail cable connection with UA-3 connectors provides cable loop isolating boom shock noises. Made for any microphone with 1" diameter. Net Each.. **$24.00**


300

Model 300 Detachable Microphone Clamp—Light weight adaptor fits any cylindrical microphone with 1" diameter. Provides positive means to mount on stand. Easily installed without tools with finger operated clamp. Rubber insert prevents slippage on mike. 1" pipe thread adaptor for ⅝"-27. Net Each..... **$6.00**

420

Model 420 Desk Stand—Heavy cast iron stand finished in TV gray. Specifically designed for use with E-V 666, 655, 646 or microphones with 1" diameter. Clamp attachment for mounting 1" cylindrical mikes without tools. Base holds mike in position when subjected to ordinary strain. Net Weight, 3 lbs. Net Each..... **$12.00**

Model 416 Stand—For use with 646, 647 microphones. Black rubber. Size 3⅛" diameter, 1" high. Net Weight 2 oz. Net Each..... **$3.00**

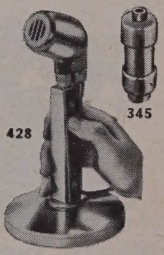
647 in 416

Model 423-A Desk Stand—Sturdy smartly styled, round die-cast base, 5⅛" diameter. Rests firmly on rubber base buttons. Rich satin chrome. ⅝"-27 thread. Choice of 3" or 5" matching stem riser. Net Weight 1 lb. Net Each..... **$2.70**

423A

Model 427-A Desk Stand—Attractive, round die-cast base rests stably on desk or table. 5" stem riser. Satin chrome. Standard ⅝"-27 thread. Base diam. 4⅝". Net Weight 10 oz. Net Each..... **$2.10**

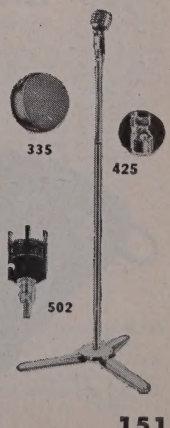
Model 345 Shock Mount—Dual-type external shock mount prevents reproduction of external shocks and stand vibrations. Permits tilting microphone head. ⅝"-27 thread. Easily attached or removed. Satin chrome. 1½" x 3⅞". Net Weight 10 oz. Net Each..... **$7.80**


428 345

Model 428 Touch-To-Talk Stand—Fits standard ⅝"-27 thread. Lever-type switch for relay operation or microphone On-Off—closes or opens instantly or locks in "talk" position. Satin chrome. Gray plastic switch lever with locking button. 7" x 5⅛" base diameter. Net Wt. 1¾ lbs. Net Each..... **$9.60**

Model 335 Blast Filter—Acoustically treated, scientifically curved grille stops wind and breath blasts. Does not affect frequency response. Easily fits over head of E-V Models 630, 635 and 605 mikes. Satin chrome. Net Each. **$3.30**

Model 502 Matching Transformer—Designed for mounting on amplifier chassis or in series with mike line. Designed for 50, 250 and 500 ohms—to Hi-Z. Broadcast fidelity. Response 40-20,000 cps ±1 db for speech or music. MC-4 input connector. Shielded against hum. Net Each..... **$9.00**


335 425 502

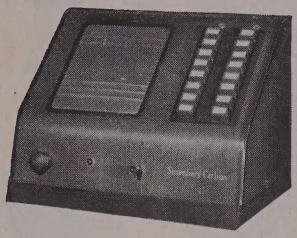
Model 425 Deluxe Floor Stand—Button at top gives 1-hand height control from 27" to 66". Locks automatically on release. Shaft can be rotated without any adjustment device. Locking-type adjustable legs permit stand to be placed flush against wall. Modern, die-cast base. 3-leg spread 17". Net Weight 7½ lbs. Net Each.... **$16.50**

Model 430 Utility Floor Stand—Similar to above, but with button on lower section for height adjustment from 36" to 65". 3-leg spread, 17". Satin chrome extension shaft. Net Weight 7½ lbs. Net Each..... **$10.20**

220X-54A

"There is nothing finer than a Stromberg-Carlson"

INTERCOMMUNICATING SYSTEMS



IM-514

IM-514. An amplified intercommunicating system in which as many as fifteen masters can be interconnected, and seven simultaneous conversations take place. Sub-stations can be inter-mixed with masters to give unlimited capacity. Each master has two volume controls for adjusting the level of incoming and outgoing messages. The IM-507 is similar except for a smaller (8 master stations) capacity.

IM-514. Master Station with Tubes. List Price $85.00
IM-507. Master Station with Tubes. List Price..... $70.00

IM-10. Private Incoming, High-level Outgoing intercommunicating system. Master station looks like a telephone, and has all of a telephone's advantages. Volume control adjusts level of incoming message; selector switch connects with any of ten remote stations, or the all-call position for simultaneous paging. Master unit is designed for use with standard Stromberg-Carlson amplifier and loudspeakers.

IM-10. Master Unit. List Price $105.00

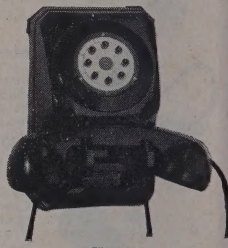
IM-10

INTERCOMMUNICATING TELEPHONE SYSTEMS

6240-C12

6240-C. Desk or Wall type intercommunicating telephone made in capacities of 12 and 24 buttons. With this telephone it is possible to ring selectively any other station in the system; simultaneous private conversations can be carried on between any master stations in the system. These instruments may be used in combination with several types of sub-station telephones to increase capacity of the system. Telephone is housed in rugged metal case, with latest type Stromberg-Carlson handset.

6240-C12. (12 buttons).
List Price $85.00



TW-28

TW-28. Wall type master station made in 8 button (9 station) capacity, or as a sub-station unit with single push button for calling the associated master station. The attractive plastic housing, with buttons and name plate in pleasantly contrasting colors, complements the appearance of any fine office or home. Used in selective ringing, common talking systems.

TW-28. Master Station. List Price..... $50.00

TD-18

TD-18. Desk type master station with eight button (nine station) capacity. This is a two-piece telephone, with light plastic housing and latest type Stromberg-Carlson handset. Five foot desk set cord gives flexibility. Also made as an extension set with call button in center of dial blank.

TD-18. Master Station.
List Price..... $50.00
TD-11. Sub Station.
List Price..... $45.00

TW-31

TW-31. Suspended type extension telephone with small hook switch box. Especially designed for use where desk top space is at a premium, this telephone mounts on a wall or on the side or in the kneehole space of a desk. This is a completely self-contained instrument, an AC buzzer providing the incoming signal, and a push button providing the means for calling the master station.

TW-31. Sub Station.
List Price..... $45.00

307-54B

Challenger Sound Systems by Bogen

8-WATT AMPLIFIER AND SYSTEM

FEATURES

- Individual controls for microphone, phonograph, SelecTone.
- Plug in connection for speaker line.
- Inverse feedback for better response and regulation.
- Molded bakelite sockets throughout. • U/L App.

SPECIFICATIONS

Power Output: 8 watts.
Response: 80-12,000 c.p.s. ±2 db.
Gain: Mic: 108 db. Phono: 71 db.
Output Impedances: 4, 8 and 16 ohms.
Tone Control: SelecTone.
Tubes: 1-6SF5, 1-6SJ7, 1-6L6GA, 1-5Y3GT.
Dimensions: (with cage): 11" W. x 7" x D. x 7⅝" H.

Bogen No. CH8—8 watt amplifier with tubes, less cage. List Price $54.50

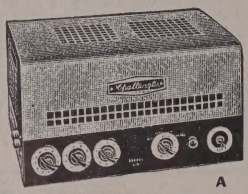
Bogen No. CAG8—Cage for CH8 amplifier. List Price $6.00

Bogen No. CH8S—Complete Portable System. Containing: 1—CH8 amplifier with tubes, 1—8" Alnico V PM speaker mounted in portable carrying case—plus 1 Astatic JT30 crystal microphone with handle, interlocking base, 15-ft. cable and plug. List Price $98.50

30-WATT AMPLIFIERS AND SYSTEMS

FEATURES

- Individual controls for two microphones, phonograph, SelecTone.
- Terminal strip and 2 speaker plug-in sockets for connection of speaker lines.
- Molded bakelite sockets
- Inverse feedback for better response and regulation.
- Extractor type fuse.
- Recessed carrying handles.
- U/L Approved.



A

B

SPECIFICATIONS

Power Output: 30 watts.
Response: 30-12,000 c.p.s. ±2 db.
Gain: Mic No. 1: 118 db. Mic No. 2: 118 db. Phono: 85 db.
Output Impedances: 4, 8, 15 ohms, 70 volts.
Tubes: 2—6SC7, 1—6SL7GT, 2—6L6G, 1—5U4G.
Tone Control: SelecTone.
Dimensions: CH30: 15" W. x 10" D. x 8" H.

Bogen No. CH30—30 watt amplifier with tubes and cage (Illustration A). List Price $96.75

Bogen No. CH30X—30 watt amplifier with tubes and built-in phono top (Illustration B). List Price $118.75

Bogen No. CH30P—Complete Portable System. Containing 1—CH30 amplifier with tubes and cage, 2—12" Alnico V PM speakers, each with 25-ft. cable and plug, mounted in split portable speaker baffle which also carries the amplifier—plus 1 Astatic JT30 crystal microphone with handle, interlocking base, 15-ft. cable and plug. List Price $177.80

Bogen No. CH30XP—Complete Portable System. Same as CH30P-1 except phono top amplifier (CH30-X) is supplied. List Price $199.80

Bogen No. CH30B—Complete Indoor System. Containing: 1—CH30 amplifier with tubes and cage, 2—12" Alnico V PM speakers, each with 25-ft. cable and plug, mounted in 12" hand finished wall baffle—plus 1 Astatic JT30 crystal microphone with handle, interlocking base, 15-ft. cable and plug. List Price $166.00

Bogen No. CH30XB—Complete Indoor System. Same as CH30B except phono top amplifier (CH30-X) is supplied. List Price $188.00

18-WATT UNIVERSAL AMPLIFIER AND SYSTEM

FEATURES

- Foolproof conversion from AC to DC.
- Constant voltage output for ease of speaker matching.
- Remote control of standby to reduce current drain.
- Individual controls for microphone, phonograph, SelecTone.
- Inverse feedback for better response and regulation.
- Built-in constant speed phonograph.
- Recessed carrying handles.
- Terminal strip and two speaker plug-in sockets for connection of speaker lines. • U/L Approved.

SPECIFICATIONS

Power Output: 18 watts.
Response: 30-12,000 c.p.s. ±2 db.
Gain: Mic: 118 db. Phono: 78 db.
Output Impedances: 4, 8, 15 ohms, 70 volts.
Tone Control: SelecTone.
Tubes: 2-6SF5, 1-6SL7GT, 2-6V6GT, 1-7Z4.
Dimensions: 15" W. x 10" D. x 10" H.

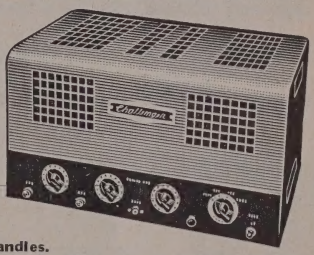
Bogen No. CH618—18 watt universal amplifier and tubes. Cage. AC and DC cable and built-in phono top. List Price $153.25

Bogen No. CH618T—18 watt universal system. Containing: 1—CH618 amplifier with tubes, cage, cables, and phono top. 1 University PG trumpet with MA25 driver unit and Astatic JT30 crystal microphone with handle, interlocking base, 15-ft. cable and plug. List Price $228.80

60-WATT AMPLIFIER AND SYSTEMS

FEATURES

- Individual control for 2 microphones, phonograph SelecTone.
- Constant voltage output for ease of speaker matching.
- Push-Pull 807 output.
- Inverse feedback for better response and regulation.
- Extractor type fuse.
- Two oil filled high voltage filter capacitors.
- Recessed carrying handles.
- Terminal strip and two speaker plug-in sockets for connection of speaker lines. • U/L Approved.



SPECIFICATIONS

Power Output: 60 watts.
Response: 30-12,000 cps ±2db.
Gain: Mic No. 1: 120 db. Mic No. 2: 120 db. Phono: 85 db.
Output Impedances: 4, 8, 15 ohms, 70 V. and 140 V.
Tone Control: SelecTone.
Tubes: 2-6SF5, 1-6SL7GT, 1-6V6GT, 2-807, 1-5Y3GT, 1-5R4GY.
Dimensions: 17" W. x 11½" D. x 9¼" H.

Bogen No. CH60—60 watt amplifier with tubes. List Price $164.50

Bogen No. CH60B—Complete Indoor System. Containing: 1—CH60 amplifier with tubes and cage, 4—12" Alnico V PM speakers, each with 25-ft. cable and plug, mounted in 12" hand-finished wall baffles—plus 1 Astatic JT30 crystal microphone with handle, interlocking base, 15-ft. cable and plug. List Price $280.50

Bogen No. CH60T—Complete Outdoor System. Containing: 1—CH60 amplifier with tubes and cage, 3 University PH trumpets with MA25 driver units and 1 Astatic JT30 crystal microphone with handle, interlocking base, 15-ft. cable and plug. List Price $357.00

6-WATT MOBILE AMPLIFIER

FEATURES

- Universal mounting permits 4 alternate mounting positions.
- Remote control of standby to reduce current drain.
- Vibrator replaceable from front without dismounting amplifier or removing cage.
- Complete chassis removable for service by removing 4 screws.
- Fused DC power cable built in.
- Primary power circuit physically isolated from high gain circuit for minimum hum.

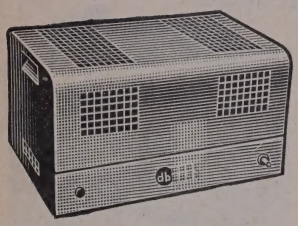
SPECIFICATIONS

Power Output: 6 watts.
Response: Optimum speech.
Gain: 109 db.
Output Impedances: 4, 8, 15 ohms.
Tubes: 2—6SF5, 1—6L6GA, 1—6X5GT.
Dimensions: 3¼" W. x 8" D. x 7" H.

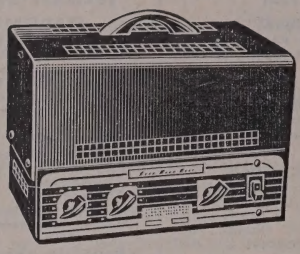
Bogen No. CD6—6 watt mobile amplifier with tubes, cage and DC cable. List Price $62.25

Bogen No. CD6J—Complete Mobile System. Containing 1—CD6 amplifier with tubes, cage and cable, 1 Jensen VH-91 trumpet and 1 Astatic JT30 crystal microphone with handle, interlocking base, 15-ft. cable and plug. List Price $115.00

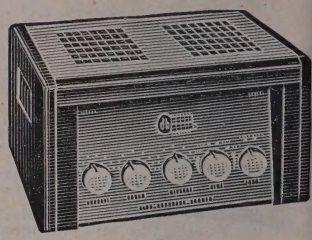
Bogen Sound Systems



A



B



C

Public address, paging, music distribution, and intercommunication systems for every need—indoor, outdoor, portable or mobile—for the large factory, school, church, stadium, or the small office, auditorium, bus or store—designed and built by the country's largest manufacturer of sound systems.

Bogen amplifiers range in power from 6 watts to 125 watts and are available in a wide variety of "package" systems including different microphones and loudspeakers for different applications. In addition, if you have a special problem, the Bogen Custom Engineering Division will design and assemble a system for your particular installation, regardless of size.

The table below lists the Bogen P.A. amplifiers and package systems. All are conservatively rated in accordance with accepted engineering standards. Each has a frequency response carefully selected to insure optimum performance in the applications for which the model has been designed. Each amplifier marked with an asterisk (*) carries Underwriters' Laboratories approval. Each is finished in tasteful tones of green and buff or green and gray. All, except the mobile and phonograph top models, are available on panels for mounting in standard steel racks, if so ordered. (Panel mounting adds $24.25 or $30.75 to the list price depending on the model.)

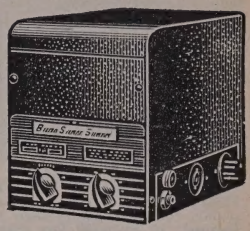
Deluxe models JX50 and JX30 incorporate the exclusive Bogen ANTI-FEEDBACK CONTROL, which permits the tuning out of acoustic feedback and hence the use of more power in the system. These models also feature separate, continuously variable bass and treble tone controls, and provision for plug-in remote volume control of two input channels. (Order remote control unit separately—SCR50 [50-ft cable] at $16.75 list price, or SCR100 [100-ft. cable] at $21.75 list price.)

Amplifier		Rated Output (Watts, Distortion)	Illustration	Controls	Built-in Phonograph Top	Power Supply
(Deluxe)	JX50*	50 at 3%	E	4 microphone channels, 1 phonograph channel, bass tone, treble tone, anti-feedback control	.....	117 volts, AC
	JX30*	30 at 2%			.....	
(Standard)	J330*	30 at 5%	E	3 microphone channels, 1 phonograph channel, bass tone, treble tone, power switch, plus phono speed control and power switch on J330Y	.....	
	J330Y*		E, plus phono top		3-speed	
	J130*		A, plus controls	1 microphone channel, 1 phonograph channel, bass tone; treble tone power switch, plus phono speed control and power switch on J130Y	.....	
	J130Y*		A, plus controls and phono top		3-speed	
	J50*	50 at 3%	A, plus controls	2 microphone channels, 1 phonograph channel, bass tone, treble tone, plus phono speed control and power switch on J15Y	.....	
	J15*	15 at 3%	C		.....	
	J15Y*		D		3-speed	
	HE10*	10 at 4%	B	1 microphone channel, 1 phonograph channel, tone corrector, power switch	.....	
(Mobile)	J623*	AC:23 at 5%	E, plus phono top	2 microphone channels, 1 phonograph channel, bass tone, treble tone, power switches, plus phono speed control on J623Y	1 speed	117 volts, AC or 6-volt, DC storage battery (automatic changeover)
	J623Y*	DC:20 at 5%			3 speed	
	E66	6 at 5%	F	1 microphone channel, power switch, phono jack	.....	
(Preamplifiers —Broadcast Quality)	JOH*	8 volts	E	4 microphone channels, 1 phonograph channel, master gain control, tone corrector	.....	117 volts, AC
	JOL*	8 volts or 1 mw at 1% 20 mw at 3.5%	E, plus output meter		.....	
	RP-1 (with CAGVU cage and meter)		B, plus output meter	1 microphone channel, 1 phonograph channel, power switch	.....	
(Boosters)	HO125*	125 at 3%	A	Power switch	.....	
	HO50*	50 at 3%			.....	
	JO30*	30 at 5%			.....	

Bogen Sound Systems

D

E



F

All "J" models (except J623, J623Y and J030), have provision for easy plug-in of low impedance input transformers, when it is desired to use low impedance microphones located a considerable distance from the amplifier. Order plug-in transformers separately for desired number of low impedance inputs: T155, T156, T157, for 200, 500, 50 ohms, respectively. In addition, models HE10, RP1, HO125, HO50 and JO30 may be ordered as low impedance versions HEL10, RP-1L, HOL125, HOL50 and JOL30, for $18-$25 additional to the list price. "J" models also feature broadcast-type microphone connectors, with positive lock and quick disconnect.

For simple, rapid impedance matching between amplifier and speakers, constant voltage output taps (70 volts, 140 volts) are provided on all Bogen amplifiers where there is likely to be need for them, in addition to conventional constant impedance taps. These eliminate the involved calculations previously required to determine the necessary speaker matching transformers, if any.

All indoor systems include a microphone and two or four speakers mounted in wall baffles (G), with connecting cables and plugs. Outdoor systems include a microphone with cable and plug and one, two or three trumpets. Portable systems include a microphone and two speakers mounted in a carrying case (H), with cables and plugs. The case, which also carries the amplifier, divides into two speaker baffles ready for instant use.

No matter what your requirements, you cannot buy a sound system of finer performance or greater dependability than a Bogen.

Dimensions (W. x H. x D.)	Shipping Weight	Output Impedance Taps	Indoor System	Outdoor Systems	Portable System	Amplifier List Price
17" x 9" x 14"	47 lbs.	4-8-16 ohms 70-140 volts	JX50B	JX50TU JX50TJ	.....	$279.50
	40 lbs.	4-8-16-500 ohms 70 volts	JX30B	JX30TU JX30TJ	.....	219.50
15½" x 7⅛" x 10¾"	30 lbs.	4-8-16-500 ohms 70 volts	J330B	J330TU J330TJ J330FR	J330P	139.50
15½" x 9" x 10¾"	35 lbs.		J330YB	J330YTU J330YTJ J330YFR	J330YP	172.00
15" x 8¼" x 10"	30 lbs.		J130B	J130TU J130TJ J130FR	J130P	113.50
15" x 9½" x 10"	35 lbs.		J130YB	J130YTU J130YTJ J130YFR	J130YP	146.00
17" x 9¼" x 12½"	43 lbs.	4-8-16 ohms 70-140 volts	J50B	J50TU J50TJ	.....	196.50
15½" x 7¾" x 10¾"	26 lbs.	4-8-16 ohms	J15B	.....	J15P	114.00
15½" x 9" x 10¾"	31 lbs.	70 volts	J15YB	.....	J15YP	146.50
11" x 7 5/16" x 7"	15 lbs.	4-8-16-500 ohms 70 volts	HE10B	.....	HE10P	71.25
15¼" x 10⅛" x 10⅞"	34 lbs.	4-8-16 ohms 70 volts	J623B	J623TU J623TJ	.....	183.00
	35 lbs.		J623YB	J623YTU J623YTJ	.....	196.00
6⅛" x 6⅞" x 9¼"	15 lbs.	4-8-16 ohms	.....	E66J E66F	.....	77.75
15¼" x 8" x 11"	17 lbs.	10,000 ohms	.....	.....	.....	132.75
	19 lbs.	10,000 ohms or 50-200-500 ohms	.....	.....	.....	172.00
11" x 8½" x 8½" (6½" high without cage)	18 lbs.		.....	.....	.....	$68.75 (RP-1) + $27.50 (CAGVU)
17 1/16" x 9⅜" x 12½"	59 lbs.	90 ohms 70-140 volts	.....	.....	.....	$215.75
	45 lbs.	4-8-16 ohms 70-140 volts	.....	.....	.....	167.50
15" x 8¼" x 10"	30 lbs.	4-8-16-500 ohms 70 volts	.....	.....	.....	108.75

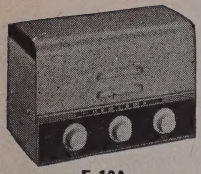
G

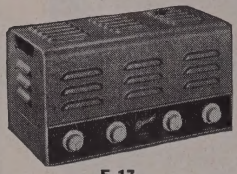
H

95-55A

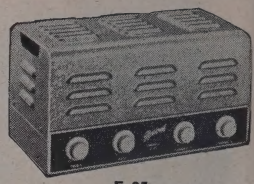
Newcomb Audio Equipment

STANDARD "E" SERIES AMPLIFIERS


E-10A


E-17

E-17P3


E-25

E-10A 10-WATT AMPLIFIER

Delivers 10 watts from push-pull 6V6 tubes. Separate mike and phono controls. Multi-stage inverse feedback circuit. **Power Output:** 10 watts at less than 5%. **Frequency Response:** 40-15,000 cps, ±2 db. **Inputs (2):** 1 mike (2 meg.), gain 116 db; 1 phono (½ meg), gain 77 db. **Tone Control:** Range 0 to −24 db. **Output Impedances:** 4, 8, 16 and 500 ohms to octal socket. **Tubes (5):** 1-6SC7, 1-6SJ7, 2-6V6GT, 1-6X5GT. **Finish:** Silvergrey hammertone baked enamel. **Panel:** etched enamel. **Power Consumption:** 60 watts at 117 volts, 60 cps. **Size:** 5¾″ x 10¾″ x 6¾″. **Weight:** 9½ lbs., less cover, 7½ lbs.
Newcomb Model E-10A Amplifier—Less cover. List... **$69.50**
Cover for E-10A—List, $7.21. **Kit of plugs,** List Price... **$1.71**

MODEL E-17 17-WATT AMPLIFIER

A conservative 17 watt model with separate bass and treble controls, phono bass boost, multi-stage inverse feedback circuit. Input controls for mike and phono. **Power Output:** 17 watts at less than 5%. **Frequency Response:** ±2 db, 40-15,000 cps. **Inputs:** 1 mike (2 meg.), gain 115 db; 1 phono (½ meg.), gain 77 db. **Output Impedances:** 4, 8, 16 and 500 ohms. **Tubes (5):** 1-12AX7; 1-6SJ7; 2-6L6G, 1-5V4G. **Finish:** Silvergrey hammertone baked enamel, etched metal, lighted panel. **Power Consumption:** 75 watts at 117 volts, 60 cps. **Size:** 8⅜″ x 14⅛″ x 8″. **Wt.:** 15½ lbs.
Newcomb Model E-17 Amplifier—
List Price..... **$107.50**
Kit of plugs for E-17—List Price..... **$2.28**

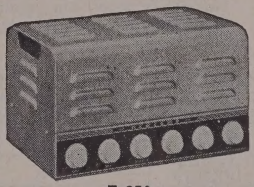
MODEL E-17P3 PHONO TOP AMPLIFIER

The same conservartively rated amplifier as Model E-17, to which has been added a three-speed phono. Identical to Model E-17 in all other respects. Price includes Excise Tax.
Newcomb Model E-17P3 Amplifier—List Price..... **$151.55**
Kit of plugs for E-17P3—List Price..... **$2.28**

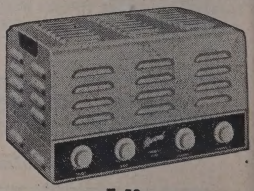
MODEL E-25 25-WATT AMPLIFIER

A dependable, full 25 watts with inputs for 2 mikes and 1 phono, separate bass and treble controls, phono bass boost, multi-stage inverse feedback circuit. **Power Output:** 25 watts at less than 5%. **Frequency Response:** ±2 db, 40-15,000 cps. **Inputs (3):** 2 mike (2 meg.), gain 117 db; 1 phono (½ meg.), gain 77 db. **Output Impedances:** 4, 8, 16 and 500 ohms. **Tubes (6):** 1-12AX7, 1-6SC7, 1-6J5, 2-6L6G, 1-5V4G. **Finish:** Silvergrey hammertone baked enamel; etched metal, lighted panel. **Power Consumption:** 90 watts, 117 volts, 60 cps. **Size:** 8⅜″ x 14⅛″ x 8″. **Weight:** 18¼ lbs.
Newcomb Model E-25 Amplifier—
List Price..... **$139.50**
Kit of plugs for E-25—List Price..... **$3.24**

E-25P3


E-254

E-254P3


E-50

MODEL E-25P3 PHONO TOP AMPLIFIER

The same dependable 25 watt amplifier as E-25, to which has been added a three-speed phono top. Identical to Model E-25 in all other respects. Price includes Excise Tax.
Newcomb Model E-25P3—List Price..... **$183.18**
Kit of plugs for E-25P3—List Price..... **$3.24**

MODEL E-254 4-CHANNEL 25-WATT AMPLIFIER

A highly versatile, yet economical 4-channel, 25-watt amplifier. Features high gain; inputs for 3 mikes and 1 phono; separate bass and treble controls; phono bass boost; multistage inverse feedback circuit. **Power Output:** 25 watts at less than 5% distortion. **Frequency Response:** ±2 db, 40-15,000 cps. **Inputs (4):** 3 mike (2 meg.), gain 123 db; 1 phono (½ meg.), gain 83 db. **Output Impedances:** 4, 8, 16 and 500 ohms. **Tubes (8):** 3-6SF5; 1-6SJ7; 1-6SN7; 2-6L6G; 1-5V4G. **Finish:** Silvergrey hammertone; etched metal, illuminated panel. **Controls:** 3 Mike; 1 Phono; 1 Bass; 1 Treble and Power Switch. **Power Consumption:** 105 watts, 117 volts, 60 cps. **Size:** 8⅜″ x 14⅛″ x 8″ high. **Weight:** 18¼ lbs.
Newcomb Model E-254 Amplifier—
List Price..... **$169.50**
Kit of plugs for E-254—List Price..... **$3.90**

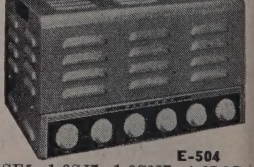
MODEL E-254P3 PHONO TOP AMPLIFIER

The same versatile amplifier as E-254, to which has been added a three-speed phono top. Identical to Model E-254 in all other respects. Price includes Excise Tax.
Newcomb Model E-254P3 Amplifier—List Price.... **$213.18**
Kit of plugs for E-254P3—List Price..... **$3.90**

MODEL E-50 50-WATT AMPLIFIER

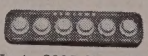
A distortion-free, conservatively rated 50 watts using push-pull parallel 6L6 tubes and multi-stage inverse feedback circuit. Has inputs for 2 mikes, 1 phono, separate bass and treble controls, phono bass boost. Same specifications as Model E-25 except as follows: **Power Output:** 50 watts at less than 5%. Mike gain 120 db, phono gain 79 db. **Output Impedances:** 4, 8, 16 and 250 ohms. **Tubes (9):** 1-6SJ7, 1-12AX7, 1-6J5, 4-6L6G, 2-5V4G. **Power Consumption:** 170 watts at 117 volts, 60 cps. **Size:** 11¼″ x 14¾″ x 8½″. **Weight:** 29 lbs.
Newcomb Model E-50 Amplifier—List Price..... **$196.50**
Kit of plugs for E-50—List Price..... **$3.24**

MODEL E-504 4-CHANNEL 50-WATT AMPLIFIER


E-504

A 4-channel, 50 watt amplifier featuring high gain, inputs for 3 mikes and 1 phono, separate bass and treble controls, phono bass boost, multistage inverse feedback, push-pull parallel output system for lowest distortion at all power levels. **Power Output:** 50 watts at less than 5%. **Frequency Response:** ±2 db, 40-15,000 cps. **Inputs (4):** 3 mike (2 meg.), gain 126 db; 1 phono (½ meg.), gain 86 db. **Output Impedances:** 4, 8, 16 and 250 ohms. **Tubes (11):** 3-6SF5, 1-6SJ7, 1-6SN7, 4-6L6G, 2-5V4G. **Finish:** Silvergrey hammertone baked enamel; etched metal, illuminated panel. **Controls:** 3 Mike, 1 Phono, 1 Bass, 1 Treble and Power Switch. **Power Consumption:** 180 watts, 117 volts, 60 cps. **Size:** 11¼″ x 14¾″ x 8½″. **Wt.:** 30 lbs.
Newcomb Model E-504 Amplifier—List Price..... **$239.50**
Kit of plugs for E-504—List Price..... **$3.90**

NEWCOMB REMOTE CONTROL UNITS



For mixing and fading remotely all "H" Series mike inputs. On "K" Series amplifiers all mikes and phono may be controlled. Up to 2000 ft. cable may be used. All inductive pickup eliminated.
Model RC-2—For H-15 amp. Uses 3-wire cable. 2¾″ x 6″ x 2½″. Weight, 1 lb. List Price..... **$10.50**
Model RC-3—For H-25 or H-4 amps. 4-wire cable. 2¾″ x 6″ x 2½″. Weight, 1 lb. List Price..... **$15.50**
Model RC-4—For H-50 amp. 5-wire cable required 2¾″ x 7⅝″ x 2½″. Weight, 1¼ lbs. List Price..... **$19.50**
Model RC-6—For KX-25, KX-50, KX-6 amps. 7-wire cable. 2¾″ x 11¼″ x 2½″. Weight, 2 lbs. List Price.... **$27.50**

NEWCOMB PLUG-IN TRANSFORMERS

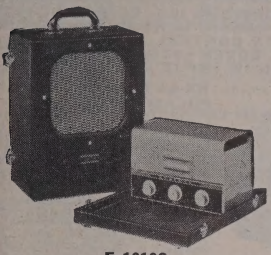
TR-91: Features sextuple alloy and copper shielding for quiet operation right in amplifier proper. Alloy core and specially designed windings for extended frequency response from 20 to 20,000 cycles. Plug base for easy installation in any Newcomb amplifier. For use between 30-50 or 200-250 ohm mikes and grid. Weight, 1¼ lbs.
List Price..... **$32.50**

TR-92 impedance 5,000 ohms to grid for bridging a 500-600 ohm line. When plugged into sockets on K50B, H50B, H25B it converts for use as bridging amps. Weight, 1¼ lbs. **$29.50**
List Price.....

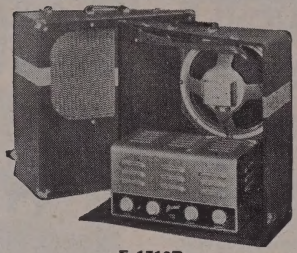
TR-100—Identical to TR-91 but for use between 125-150 or 500-600 ohm mikes and grid.
List Price..... **$32.50**

Newcomb Audio Equipment

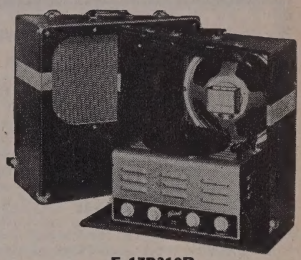
"E" SERIES PORTABLE SYSTEMS



E-1010S



E-1712R
E-2512R



E-17P312R
E-25P312R

MODEL E-1010S PORTABLE SYSTEM

A 10 watt basic portable consisting of one E-10 amplifier with plugs and one E-110S case assembly with efficient 10" P.M. speaker protected by a kickproof metal grille. Speaker cable, 25-ft. **Overall Size:** 12¼" x 15¾" x 8¾". **Weight:** 19 lbs.
Newcomb Model E-1010S System—Not including mike and stand. List Price..... $126.82

MODEL E-1712R PORTABLE SYSTEM

A 17 watt dual speaker portable system consisting of one EH-212R split speaker and amplifier case assembly with two 12" high quality P.M. speakers, each with 25-ft. cable, protected by kickproof grills, and one E-17 amplifier with plugs. **Size:** 11⅛" x 20½" x 21". **Weight:** 42½ lbs.
Newcomb Model E-1712R System—Not including mike or stand. List Price..... $209.28

MODEL E-2512R PORTABLE SYSTEM

A 25 watt dual speaker portable system with Model E-25 amplifier. Same as E-1712R system otherwise. **Weight:** 40 lbs.
Newcomb Model E-2512R System—Not including mike or stand. List Price..... $242.24

MODEL E-17P312R PORTABLE SYSTEM

A 17 watt dual speaker portable system with three-speed phono. Model E-17P3 amplifier in EH-212R split case assembly. Otherwise same as E-1712R system. Excise Tax included.
Newcomb Model E-17P312R System—List Price... $252.96

MODEL E-25P312R PORTABLE SYSTEM

A 25 watt dual speaker portable system with three-speed phono. Model E-25P3 amplifier in Model EH-212R split case assembly. Otherwise same as E-2512R system. Excise Tax incl.
Newcomb Model E-25P312R System—List Price... $285.92

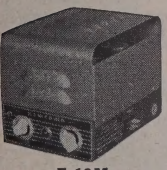
MODEL E-25412R PORTABLE SYSTEM

A 25 watt dual speaker portable system consisting of one EH-212R split case assembly with two 12" P.M. speakers each with 35-ft. cable, and Model E-254 four-channel amplifier. Speakers are protected by kickproof metal grills.
Newcomb Model E-25412R System—Not including mike or stand. List Price..... $272.90

MODEL E-254P312R PORTABLE SYSTEM

A 25 watt dual speaker system with three speed phono. Same as E-25412R above, but with four channel amplifier Model E-254P3. Excise Tax included.
Newcomb Model E-254P312R System—Not including mike or stand. List Price..... $316.58

"E" SERIES MOBILE AMPLIFIERS



E-10M

E-25MP

MODEL E-10M MOBILE AMPLIFIER

A 10 watt mobile amplifier. Particularly rugged, dependable, at low cost. For use on 6 volt DC or 117 volt, 60 cycle. Features push-pull beam power output tubes with inverse feedback for low distortion, standby battery saver switch, new freedom from vibrator hash, special mounting for easy removal of chassis, inputs for mike and phono, sturdy Jones connectors for battery and AC cables. **Power Output:** 10 watts at less than 5%. **Frequency Response:** ±2 db, 50-15,000 cps. **Inputs (2):** mike (2 meg.), gain 115 db; phono (½ meg.), gain 75 db. **Output Impedances:** 4, 8, 16 ohms. **Tubes (5):** 1-6SC7, 1-6SF5, 2-6V6GT, 1-6X5GT. **Power Consumption:** 60 watts, 117 volts; 8 amps at 6 volts DC. **Finish:** Silvergrey hammertone baked enamel; etched metal panel, illuminated. **Size:** 6⅛" x 6⅜" x 8¼". **Weight:** 9¾ lbs.
Newcomb Model E-10M Mobile Amplifier—List Price. $99.75
Kit of Plugs for E-10M—List Price..... $1.39

MODEL E-25MP MOBILE AMPLIFIER

A 25 watt mobile amplifier with 78 rpm phono. For use on 6 volt storage battery or 117 volt AC. Consumes minimum current per watt output. Has standby switch, separate power and turntable switches, heavy duty Jones plugs and receptacles for dependable connections to battery or AC power. **Power Output:** 25 watts at less than 5%. **Response:** ±2 db, 50-15,000 cps. **Inputs (3):** 2 mike (2 meg.), gain 119 db; 1 phono (½ meg.), gain 78 db. **High Frequency Attenuator:** Range 28 db. **Circuit:** Multi-stage inverse feedback, resistance capacity coupling, phase correction for phono motor, 2000 volt hermetically sealed oil buffer condenser. **Output Impedances:** 4, 8, 16 and 500 ohms to 2 octal speaker sockets and impedance selector. **Phono:** Constant speed 78 rpm. **Pickup:** Crystal. **Tubes (7):** 1-12AX7, 1-6SJ7, 1-6J5, 2-6L6, 2-6X5GT. **Power Consumption:** 107 watts, 117 volts, 60 cps or 20.5 amps (including phono) from 6 volt battery. **Finish:** Silvergrey hammertone baked enamel; etched metal, illuminated panel. **Size:** 8¾" x 14⅛" x 10". **Wt.:** 26 lbs. Includes Excise Tax.
Newcomb Model E-25MP Mobile Amplifier—List.. $215.00
Kit of Plugs for E-25MP—List Price..... $3.24

MODEL E-25M MOBILE AMPLIFIER

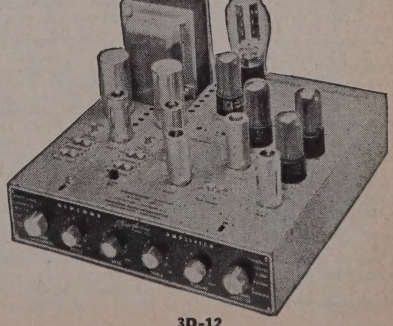
Same as Model E-25MP without phono. **Power Consumption:** 91 watts AC or 17 amps from 6 volt DC battery. **Size:** 8⅜" x 14⅛" x 8". **Weight:** 23 lbs.
Newcomb Model E-25M Mobile Amplifier—List.... $195.75
Kit of Plugs for Model E-25M—List Price..... $3.24

MODEL E-25MP3 MOBILE AMPLIFIER

Same as Model E-25MP except with three speed phono. Simple needle pressure adjustment improves performance with 78 rpm records. Identical to E-25MP in all other respects.
Newcomb Model E-25MP3 Mobile Amplifier—List.. $239.43
Kit of Plugs for E-25MP3—List Price..... $3.24

NEW 2-CHANNEL STEREOPHONIC AMPLIFIER MODEL 3D-12

Hollywood's 3-D reproduction is now available for home enjoyment. This unit produces true Stereophonic or "enhanced" 2-speaker Monaural reproduction from records, radio or tape. Channel Selector provides choice or stereophonic or "enhanced" monaural reproduction; reverses channels; gives choice of Channel A or B separately; bass control range 0 to +18 db; treble control range −24 to +13 db. Phono Crossover Control selects program source and crossovers. Includes positions for Orthophonic, N.A.B., Columbia, AES and 78 rpm recording curves. Crossovers apply to **both** channels. New "Focus" control balances speakers for maximum stereophonic presence. Single knob control of duplicate functions in matched channels makes this 2-channel amplifier as easy to operate as a conventional one. Fletcher-Munson compensated volume control for utmost low level realism. **Response:** ±1 db, 20-20,000 cps. **Hum and Noise:** 80 db below 12 watts. **Power Output:** Each channel, 12 watts at less than 2% distortion; 10 watts at less than 1%. **Inputs** to both channels provide for crystal pickups; high level magnetics (Pickering) .025 volts; low level magnetics (GE) .008 volts; radio 1 volt; tape, 1 volt. **Output Impedances:** 8 and 16 ohms to speakers at each output strip. Special response for Cook Binaural recordings. 2 tape outputs, one from each channel, connect to owner's sterophonic tape recorder to produce stereophonic tapes. Average output using LP records, approximately 3 volts. Chassis provided with AC convenience outlet. Exclusive "Adjusta-Panel feature. **Size:** 12⅛" wide, 12½" deep, 7⅜" high. **Weight:** 19 lbs.
Newcomb Model 3D-12 Stereophonic Amplifier—Net Each..... $179.50



3D-12

393-54A

Newcomb Audio Equipment

NEWCOMB CUSTOM "K" SERIES AMPLIFIERS

20-20,000 CYCLES ±1 DB • LESS THAN 3% DISTORTION • 90% OF RATING AT LESS THAN 1% • FULL POWER ANY OUTPUT TAP • AUDIO BANDWIDTH SELECTORS • HUM AND NOISE LEVEL −80 DB • REMOTE CONTROL PROVISION ALL INPUTS • U/L APPROVED • KEYLOCKED CONTROL COVER • SENSITIVE VOLUME AND OVERLOAD INDICATORS • WIRED FOR PLUG-IN INPUT TRANSFORMERS

KX-25

KX-25 AMPLIFIER
POWER OUTPUT: 25 watts design center rating, 30 watts max. at less than 3% distortion any output tap. PEAK POWER: 40 watts design center, 48 watts max. FREQUENCY RESPONSE: ±1 db 20-20,000 cycles. INPUTS: (6) 5 mike, (2 meg) gain 123 db; 1 phono either magnetic input gain 99 db based on 27,000 ohm input with +10 db bass equalization, or crystal input (½ meg.) gain 90 db. BASS TONE CONTROL: −16 to +25 db. TREBLE TONE CONTROL: −30 to +20 db. OUTPUT IMPEDANCES: 4, 8, 16, 250 and 500 ohms plus a 70 volt "constant voltage" tap. CONTROLS: (15) 5 mike, 1 phono, 1 bass, 1 treble, 4 bandwidth, 1 master, 1 volume indicator, 1 AC switch. TUBES: (15) 6-6SC7; 2-6J5; 1-6J7; 1-6SQ7; 2-6L6G; 1-6AF6G; 1-6SN7; 1-5U4G. POWER CONSUMPTION: 135 watts, 117 volts, 60 cps. Max. Input 129 volts. 9⅜" x 17¾" x 14¾". Wt., 38½ lbs. (Plug Kit **$6.92.**)
Newcomb Model KX-25—List Price..... **$450.00**

KX-50 AMPLIFIER—POWER OUTPUT: 50 watts design, center rating, 60 watts max. any output tap. Distortion less than 3% measured at 1000 cycles or less than 1% at 90% of rating. 50 and 5000 cycle distortion less than 5% at rated output. PEAK POWER: 80 watts design center, 90 watts max. FREQUENCY RESPONSE: ±1 db 20-20,000 cps. INPUTS: (6) 5 mike (2 meg) gain 126 db; 1 phono either magnetic input gain 102 db based on 27,000 ohm input with +10 db bass equalization, or crystal input (½ meg) gain 93 db. BASS TONE CONTROL:—16 to +25 db. TREBLE TONE CONTROL:−30 to +20 db. OUTPUT IMPEDANCES: 4, 8, 16, 250 and 500 ohms plus a 70 volt "constant voltage" tap. CONTROLS: (15) 5 mike, 1 Phono, 1 bass, 1 treble, 4 bandwidth, 1 master, 1 volume indicator, 1 AC power switch. TUBES: (18) 6-6SC7; 2-6J5; 1-6J7; 1-6SQ7; 1-6SN7; 4-6L6G; 1-6AF6G; 2-5U4G. POWER CONSUMPTION: 235 watts, 117 volts 60 cycles AC, max. input 129 volts. 9⅜" x 17¾" x 14¾". Wt. 46 lbs. (Plug Kit **$7.03**)
Newcomb Model KX-50—List Price..... **$525.00**

KX-6A

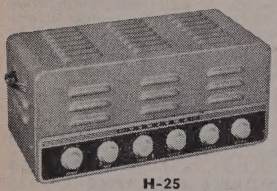
KX-6A MIXER PREAMPLIFIER
POWER OUTPUT: +31 VU, less than 3% distortion; +30 VU less than 1% distortion. INPUTS: (6) 5 mike (2 meg.) gain 97db; 1 phono either crystal (½ meg) gain 64 db, or magnetic (27,000 ohms) gain 73 db. BASS TONE CONTROL: −16 to +25 db. TREBLE TONE CONTROL: −30 to +20 db. OUTPUT IMPEDANCES: 500-600 ohms CT. CONTROLS: (12) 5 mike, 1 phono, 1 bass, 1 treble, 1 master, 1 4-position band-width, 1 AC power switch, 1 VU meter range switch. TUBES: (12) 6-6SC7; 4-6J5; 1-6J7; 1-6X5. POWER CONSUMPTION: 35 watts, 117 volts 60 cps., max. input 129 volts. 9⅜" x 17¾" x 14¾". Weight, 30 lbs. (Plug Kit **$5.29**)
Newcomb Model KX-6A—With tubes. List Price... **$395.00**

K-50B BOOSTER AMPLIFIER
POWER OUTPUT: 50 watts design center rating, 60 watts max. at less than 3% distortion any output tap, or less than 1% at 90% of rating. PEAK POWER 80 watts design center, 90 watts max. INPUT: (1) ½ meg. impedance, gain 71 db. CONTROLS: (3) 1 volume, 1 volume indicator, 1 AC power switch. VOLUME INDICATOR: Electron ray type coupled to calibrated control provides full scale deflection from 2 to 60 watts. OVERLOAD INDICATOR: Electron ray tube indicates slightest overload of output tubes. OUTPUT IMPEDANCES: 4, 8, 16, 250 and 500 ohms; 70 volt "constant voltage" tap. TUBES: (10) 1-6SJ7; 1-6SN7; 1-6SQ7; 4-6L6G; 1-6AF6G; 2-5U4G. POWER: 230 watts, 117 volts, 60 cps, max. input 129 volts. 9⅜" x 17¾" x 12¼". Wt. 41 lbs. (Plug Kit **$2.50**)
Newcomb Model K-50B—With tubes. List Price.. **$225.00**

K-50B

NEWCOMB DELUXE "H" SERIES AMPLIFIERS

• 20-20,000 CYCLES ±2DB • FULL POWER ANY OUTPUT TAP • LESS THAN 5% DISTORTION • 90% OF RATED POWER AT LESS THAN 2% DISTORTION • REMOTE CONTROL PROVISION ALL MIKES • U/L APPROVED • WIRED FOR PLUG-IN INPUT TRANSFORMERS



H-25

H-15 AMPLIFIER
(Not Illustrated)
POWER OUTPUT: 17 watts design center rating, 20 watts amx. at less than 5% distortion any output tap. PEAK POWER: 26 watts design center, 31 watts max. INPUTS: (3) 2 mike (2 meg) gain 120 db; 1 phono (½ meg) gain 80 db. BASS TONE CONTROL: −16 to +14 db. TREBLE CONTROL: −34 to +13 db. OUTPUT IMPEDANCES: 4, 8, 16, 250 and 500 ohms plus a 70 volt "constant voltage" tap. CONTROLS: (5) 1 mike-phono, 1 mike, 1 bass, 1 treble, 1 AC power. TUBES: (7) 2-6SF5; 1-6SJ7; 1-6SN7; 2-6L6G; 1-5Z4. POWER CONSUMPTION: 85 watts, 117 volts, 60 cycles AC. Maximum input, 129 volts. SIZE: 8¼" x 19" x 10⅛". Weight, 20 lbs. (Plug Kit **$4.09**).
Newcomb Model H-15—With tubes. List Price.... **$179.50**

H-25 AMPLIFIER—POWER OUTPUT: 25 watts design center rating, 30 watts max. at less than 5% distortion any output tap. PEAK POWER: 40 watts design center, 48 watts max. INPUTS: (4) 3 mike (2 meg) gain 124 db; 1 phono (½ meg) gain 80 db. BASS TONE CONTROL: −18 to +15 db. TREBLE TONE CONTROL: −27 to +10 db. OUTPUT IMPEDANCES: 4, 8, 16, 250 and 500 ohms plus a 70 volt "constant voltage" tap. CONTROLS: (6) 2 mike, 1 mike-phono, 1 bass, 1 treble, 1 AC power. TUBES: (8) 3-6SF5; 1-6SN7; 1-6SJ7; 2-6L6G; 1-5U4G. POWER CONS.: 125 watts, 117 volts, 60 cps., max input 129 volts. 8⅛" x 19" x 10⅛". Wt., 24 lbs. (Plug Kit **$5.03**)
Newcomb Model H-25—With tubes, List Price.... **$210.00**

H-50 AMPLIFIER—50 watts design center rating, 60 watts max. at less than 5% distortion any output tap. 50 and 5000 cycle distortion less than 5% at rated output. PEAK POWER: 80 watts design center, 90 watts max. INPUTS: (5) 4 mike (2 meg) gain 124 db; 1 phono (½ meg) gain 81 db. BASS TONE CONTROL: −21 to +16 db. TREBLE TONE CONTROL: −27 to +10 db. OUTPUT IMPEDANCES: 4, 8, 16, 250 and 500 ohms plus a 70 volt "constant voltage" tap. CONTROLS: (7) 3 mike, 1 mike-phono, 1 bass, 1 treble, 1 AC power. TUBES: (12) 4-6SF5; 1-6SJ7; 1-6SN7; 4-6L6G; 2-5U4G. POWER CONSUMPTION: 225 watts, 117 volts, 60 cps., max input 129 volts. 9¼" x 19" x 12⅛". Wt., 37 lbs. (Plug Kit, **$6.10**)
Newcomb Model H-50—With tubes. List Price.... **$279.50**

H-4VU MIXER PRE-AMP.
POWER OUTPUT: +22 db at less than 5% distortion, +21 db at less than 2%. INPUTS: (4) 3 mike (2 meg) gain 90 db; 1 phono (½ meg) gain 51 db. BASS TONE CONTROL: −16 to +14 db. TREBLE TONE CONTROL: +27 to −13 db. OUTPUT IMPEDANCE: 500-600 ohms CT. CONTROLS: (8) 2 mike, 1 mike-phono, 1 master, 1 bass, 1 treble, 1 VU selector, 1 AC power. TUBES: (7) 3-6SF5; 1-6SJ7; 1-6SN7; 1-6J5; 1-6X5. POWER CONSUMPTION: 30 watts, 117 volts, 60 cps. Max. input 129 volts. 8⅛" x 19" x 10⅛". Wt. 17½ lbs. (Plug Kit **$3.44**)
Newcomb Model H-4VU—With tubes. List Price... **$225.00**

H-4VU

H-25B BOOSTER AMP.
POWER OUTPUT: 25 watts design center rating, 30 watts max. at less than 5% distortion any output tap, or less than 2% at 90% of rating. PEAK POWER: 40 watts design center, 48 watts max. INPUT: (1) ½ meg. impedance, gain 68 db. CONTROLS: (2) 1 volume, 1 AC power. OUTPUT IMPEDANCES: 4, 8, 250 and 500 ohms plus a 70 volt "constant voltage" tap. TUBES: (5) 1-6SJ7; 1-6J5; 2-6L6G; 1-5U4G. POWER CONSUMPTION: 120 watts, 117 volts, 60 cps. Max. input 129 volts. 8⅛" x 19" x 10⅛". Weight 22 lbs. (Plug Kit **$1.69**)
Newcomb Model H-25B—With tubes. List Price..... **$149.50**

H-25B

H-50B BOOSTER AMPLIFIER—POWER OUTPUT: 50 watts design center rating, 60 watts max. at less than 5% distortion, or less than 2% at 90% of power rating. PEAK POWER: 80 watts design center, 90 watts maximum. INPUT: (1) ½ meg. impedance, gain 71 db. CONTROLS: (2) 1 volume, 1 AC power. OUTPUT IMPEDANCES: 4, 8, 16, 250 and 500 ohms plus a 70 volt "constant voltage" tap. TUBES: (8) 1-6SJ7; 1-6J5; 4-6L6G; 2-5U4G. POWER CONSUMPTION: 220 watts, 117 volts, 60 cps. Max. Input 129 volts. 9¼" x 19" x 12½". Weight, 33½ lbs. (Plug Kit **$1.69**)
Newcomb Model H50-B—With tubes. List Price.. **$189.50**

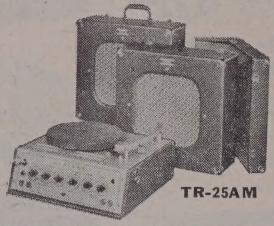
Newcomb Audio Equipment

NEWCOMB TRANSCRIPTION PLAYERS AND PUBLIC ADDRESS SYSTEMS

Newcomb transcription players also serve as excellent PA systems when mike is attached to input provided. Foolproof in operation with emphasis on dependability, tone quality and light weight. All U/L approved. Variable control of tempo and pitch.

TR SERIES FEATURES NEW "SPEED-O-SCOPE"
A new strobe device indicates exactly 33⅓, 45 or 78 rpm speed that is practical for use around children. Completely concealed, it is protected from damage but is easily viewed through a polished metal mirror. Can even be read out of doors. Light intensifier switch improves readability in bright light.

TR-25AM TRANSCRIPTION PLAYER
A new 25 watt, 3-speed transcription player and PA system. Plays all records up to 17¼". PICKUP: Twist type, dual needle G.E. variable reluctance. SCRATCH SUPPRESSOR: effectively controls surface noise. POWER OUTPUT: 25 watts at less than 5% distortion. FREQUENCY RESPONSE: ±2 db, 40-15,000 cps. INPUTS: 2 mikes, high impedance, gain 120 db. CONTROLS: (9) 1 phono bass, 1 phono treble, 1 phono volume, 2 mike volume, 1 mike bass (second mike is unaffected by either set of tone controls), 1 power, 1 scratch filter, 1 variable motor speed. PHONO MOTOR: Newly developed 3-speed, 33⅓, 45 and 78 rpm, with speed control for variation from any basic speed. 2 lb., 10" turntable contributes to wow-free performance. FLOATING SOUND: Newcomb construction eliminates needle skipping. SPEAKERS: 2 efficient 12", in separate split case, each with 25' cord. OUTPUT IMPEDANCES: 4, 8 ohms. TUBES: (10) 2-6SC7; 1-6SJ7; 1-6SN7; 4-6V6GT; 2-5Y3. POWER CONSUMPTION: 130 watts, 117 volts, 60 cps, including phono motor. DIMENSIONS: Amp-phono case, 16½" x 16¼" x 7⅞". Weight, 36 lbs. Dual speaker case, 16¼" x 16¼" x 12". Weight, 19 lbs. Mike not included.
Newcomb Model TR-25AM—With tubes, List Price..... **$382.50**


TR-25AM

TR-16AM TRANSCRIPTION PLAYER
A deluxe 10 watt, 3-speed transcription player and P.A. system. Plays all records up to 17¼". PICKUP: Twist type, dual needle G.E. cartridge. SCRATCH SUPPRESSOR: Controls surface noise. POWER OUTPUT: 10 watts at less than 5% distortion. FREQUENCY RESPONSE: ±2 db 50-10,000 cycles. INPUTS: (2) 1 mike, 1 radio or phono changer. CONTROLS: (8) 1 treble, 1 bass, 1 phono volume, 1 mike volume (special circuit prevents bass boost from adding unwanted bass to mike), 1 power, 1 scratch filter, 1 variable motor speed, 1 motor. AC PHONO MOTOR: 3-speed, 33⅓, 45 and 78 rpm, with vernier speed control for variation from any basic speed. New principal and 2 pound turntable achieve wow-free performance. FLOATING SOUND: eliminates needle skipping. SPEAKER: 12" Alnico V PM dynamic with 25' cable. TUBES: (6) 2-6SC7; 1-6SJ7; 2-6V6GT; 1-6X5GT. POWER CONSUMPTION: 70 watts, 117 volts, 60 cps. including phono motor. DIMENSIONS: 14⅜" x 15¾" x 11⅞". Weight, 33 lbs. Without mike
Newcomb Model TR-16AM—With tubes. List Price. **$257.50**

TR-16AM

TR-16A TRANSCRIPTION PLAYER—A 10-watt, 3-speed transcription player and P.A. system. Plays all records up to 17¼". PICKUP: Dual needle, featherweight crystal. Semi-permanent needle, easily replaceable. Has all features of TR-16AM except the scratch suppressor. TUBES: (5) 1-6SC7; 1-6SJ7; 2-6V6GT; 1-6X5GT. Weight, 33 lbs. No mike.
Newcomb Model TR-16A—With tubes. List Price.. **$233.25**

CR-11 MIKE—Newcomb-Shure hand or desk mike for all TR models and R-16. New principle provides good voice with ruggedness. Unaffected by high temperatures and humidity. Has on-off switch. With mounting bracket, 7' cable and plug.
Newcomb Model CR-11—List Price..... **$23.75**

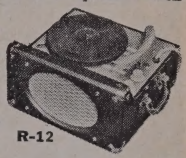
T112R EXTRA SPEAKER—For use with all TR model systems. 12" Alnico V PM dynamic, 25' cord, kickproof metal grill. Plywood case covered in fabricoid. Dimensions: 16¼" x 16¼" x 7⅞". Weight, 12 lbs.
Newcomb Model T-112R—List Price..... **$65.85**

WE CARRY THE COMPLETE LINE OF NEWCOMB QUALITY PUBLIC ADDRESS AND HIGH FIDELITY EQUIPMENT. DO NOT HESITATE TO INQUIRE ABOUT NEW ITEMS AND ITEMS THAT SPACE REQUIREMENTS HAVE PROHIBITED LISTING HEREIN.

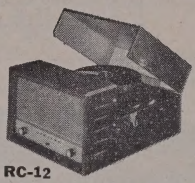
NEWCOMB PORTABLE PHONOGRAPHS & RADIOS

R-12 PHONOGRAPH
Plays all 3 speeds, 33⅓, 45 and 78 rpm. Featherweight pick-up. 100% AC construction. U/L approved. 6" x 9" speaker. Kickproof grill.

5 watt, 3 speed portable plays all records up to 12". Rich "Console like" tone. Latest featherweight crystal pickup. Floating Sound construction eliminates groove skipping. Has full A.C. construction and is Underwriters Laboratories approved. Includes tone control and pilot light in addition to a volume control. Carrying case is plywood covered in washable fabricoid, 13¾" x 14⅛" x 7¾". Weight, 20 lbs.
Newcomb Model R-12—With tubes. List Price..... **$89.95**


R-12

MODEL RC-12A CHANGER PHONOGRAPH
A 5 watt table model with quality changer. Plays all 3 speeds, 33⅓, 45 and 78 rpm. Featherweight pickup for long record life. 100% AC construction. U/L approved. Big 6"x9" oval speaker with kick-proof grille. Thoroughly dependable record changer. Slumber switch turns off entire machine automatically after last record if desired. Plywood cabinet covered with brown-leather-finished fabricoid. Tone control, volume control, pilot light and slumber switch. Size: 14⅜" x 9⅝" x 18½". Weight 31½ lbs. With tubes, less excise tax.
Newcomb Model RC-12A—List Price..... **$119.50**


RC-12

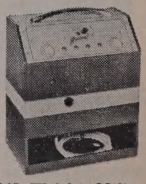
R-16 TRANSCRIPTION PLAYER AND P. A. SYSTEM
Shockproof floating sound. 100% A.C. construction. Big. 10" speaker. U/L approved. Plays all records to 17¼". Separate mike and phono volume. A practical P. A. system.
5-watt portable, 3-speed transcription player with mike input and mixing volume control. Has 10" Alnico V PM dynamic speaker in removable section of case with 25' cable. Plays 33⅓, 45 and 78 rpm up to 17¼". Floating Sound eliminates needle skipping. Has tone control, mike volume, phono volume and pilot light. Case is plywood covered with fabricoid, size 14" x 15" x 8½". Weight 22 lbs.
Newcomb Model R-16—With tubes. List Price..... **$115.00**

R-16

B-100 PORTABLE RADIO
Big 6" speaker. Full A.C. construction. Built-in loop. Extremely sensitive. Jack for added amplification or headphones. U/L approved. Portable AM radio brings new quality and ruggedness to this field. Built-in loop makes external antenna generally unnecessary. 3-gang design eliminates heterodyne squeals and assures adequate selectivity. Has jack for connection to any TR-16 model for additional volume. May also be used for headphones. Full A.C. construction. 6" Alnico V PM dynamic speaker. Dial assembly avoids strings, cannot be harmed by turning beyond its range. Plywood cabinet covered in two-toned fabricoid. Size 7⅝" x 14¼" x 8". TUBES: (6) 2-6SK7; 1-6SA7; 1-6SQ7; 1-6V6GT; 1-6X5GT. Weight 13¼ lbs.
Newcomb Model B-100—With tubes. List Price..... **$85.95**

B-100

G-12 GUITAR AMPLIFIER
POWER OUTPUT: 12 watts at less than 5% distortion. Over 90% of output at less than 2% distortion. FREQUENCY RESPONSE: ±1 db, 30-15,000 cycles. INPUTS: (4) 1 mike (2 meg) gain 115 db; 3 musical instrument (½ meg) gain 100 db. CONTROLS: (2) 1 volume, 1 bass with power. TONE CONTROL: 0 to −23 db. CASE: Plywood construction with plenty of strength for constant traveling abuse, covered in washable fabricoid material. SPEAKER: 12" Alnico V permanent magnet. TUBES: (5) 1-6SC7; 1-6SF5; 2-6V6GT; 1-5Y3GT. DIMENSIONS: 9¼" x 14⅞" x 18⅜". Weight, 23 lbs. With tubes.
Newcomb Model G-12—List Price..... **$139.50**
Protective slip cover. List..... **$8.35**

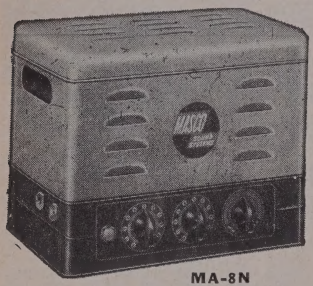


Masco Audio Equipment

MA-8N 8-WATT AMPLIFIER AND MAS-8N 8-WATT PORTABLE SYSTEM

Features: Microphone and phono input separately controlled; bass-treble tone control. This is an ideal unit for paging systems for bus and railroad stations, and is recommended for side shows, auction room, sales meetings, small taverns and clubs.

Amplifier Specifications: Power output—8 watts, class A at less than 5% distortion. Peak power—13 watts. 1 microphone, 1 phono input. Tubes: 1-6SF5, 1-6SJ7, 1-6L6G, 1-5Y3GT. Output impedances—3.2, 8 and 70 volt constant voltage tap. For 105-125 V. 60 cycle AC only.



MA-8N

MA-8N Amplifier (less cover with tubes). 10" x 6" x 7½" high. Shipping weight 14 lbs. List Price..... **$65.00**

Cover for MA-8N..... **$12.00**

Kit of Matched Plugs and Connectors for **MA-8N**..... **1.73**

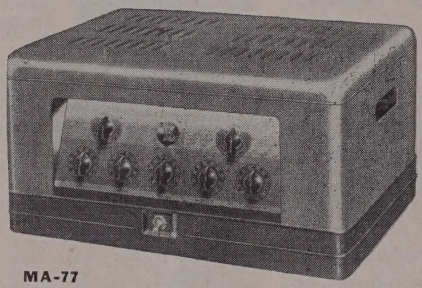
MAS-8N Portable System— Shipping weight 30 lbs. List **$132.50**

Consists of: 1—MA-8N amplifier with cover and tubes.
1—10" PM speaker, 25-ft. speaker cable with plug.
1—Model 303 carrying case.
1—Astatic JT-30 microphone with 15' cable and connectors.

MA-77 75-WATT AMPLIFIER

Features: Five input channels: four microphone and one phono; individual bass and treble equalizers; 75 watts of undistorted power; negative feedback; fully fused.

Application: MA-77 has multi-tapped line and voice-coil impedances to match any speaker, or speaker groups or lines. Suitable for rack mounting for larger auditoriums, theater reinforcements, indoor and outdoor rinks, wherever numerous speakers are required. With suitable speakers and horns, the power can be concentrated where needed at points of high noise level, or arranged to uniformly cover large areas.



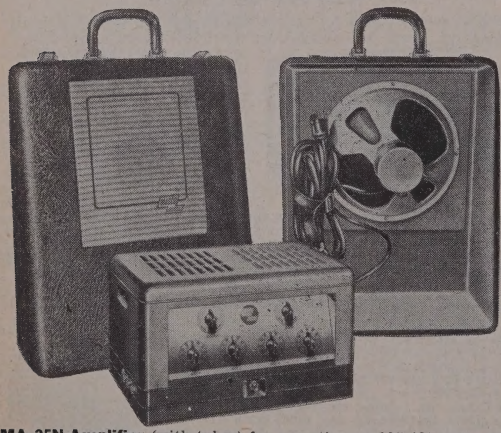
MA-77

Specifications: Power output is 75 watts, class AB-1, at less than 5% distortion; peak power is 90 watts. 5 inputs—4 microphone, 1 phono. Frequency response is ±2 db, from 50-15,000 cps. Tubes: 4-6J7; 1-6SC7; 1-6SJ7; 1-6SL7GT; 1-6SN7GT; 2-807; 3-5Y3GT. Output impedances are 4, 8, 16, 250 ohms, 70 volt, 140 volt (constant). Hum level is 67 db below 75 watts. 105-120 volt, 60 cps operation only. Size: 16" x 11" x 8⅜". Shipping weight 45 lbs. either model.

MA-77 Amplifier (with tubes). List Price..... **$280.00**

MA-77R Amplifier—Same as above, but with built-in circuit for remote control of two of the microphone channels when used with RCB. List Price.... **305.00**

MA-25N 25-WATT AMPLIFIER AND MAS-25N 25-WATT PORTABLE SYSTEM



Features: Four inputs with four-channel electronic mixing. Separate bass and treble controls; tapped line and voice coil impedances; overall negative feedback. **Applications:** An ideal system for the larger auditoriums, churches, night clubs, orchestras, indoor sports arenas and also for lighter duty outdoor installations. **Specifications:** 25 watts power output, class AB-1, less than 5% distortion; peak power, 40 watts. 3 microphone, 1 phono input. Frequency response is flat ±2 db, 50 to 15,000 cps. Tubes: 4—6J7, 2—6SC7, 2—6L6G, 1—5V4G. Output impedances: 4, 8, 15, 250 and 500 ohms, 70 volt constant voltage.

MA-25N Amplifier (with tubes) for operation on 105-125 volts, 60 cps only. 15" x 8½" x 8⅜". Shipping Weight, 30 lbs. List Price..... **$145.00**

MAS-25N Portable System—Consists of: 1-MA-25N amplifier with tubes; 2 12" PM speakers; 2-25-ft. speaker cables and plugs; 1-Model 305 portable carrying case; 1-Astatic JT-30 mike with 12-ft. cable and connectors.

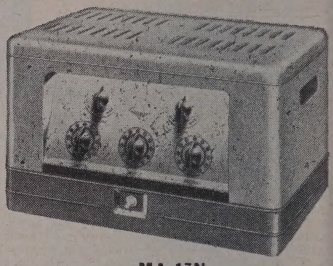
MAS-25N Portable System—Shipping weight, 60 lbs. List Price..... **$240.00**

MA-25PN-3 Amplifier—With 3-speed phono top. Shpg. Wt. 32 lbs. List Price. **$182.50**

MAS-25PN-3 System—With 3-speed phono top amplifier. Wt. 61 lbs. List.. **285.00**

MA-25NR—MA-25N adapted for remote control of 2 channels when used with RCB. List Price..... **$177.50**

MA-17N 17-WATT AMPLIFIER AND MAS-17N 17-WATT PORTABLE SYSTEM



MA-17N

Features: Two microphone, 1 phono input; separate bass and treble tone controls; tapped line and voice-coil impedances.

Application: Suitable for small orchestras, lecturers, night clubs and ballrooms.

Specifications: Power output is 17 watts, class A, at less than 5% distortion; peak power is 26 watts. 3 inputs: 2 mike, 1 phono. Frequency response is flat within ±2 db from 50 to 12,000 cps. Tubes: 1-6SJ7, 1-6SL7GT, 1-6SC7, 2-6L6G, 1-5V4G. Output impedances are 4, 8, 15, 250 and 500 ohms, 70 volt constant voltage. Hum level is 62 db below output level of 17 watts. For use on 105-125 V 60 cycle AC line only, size 13" x 8" x 8⅜". Shipping weight, 20 lbs.

MA-17N Amplifier (with tubes). List Price..... **$116.00**

Kit of Matched Plugs and Connectors..... **$2.65**

MAS-17N—Portable System. Shipping weight 45 lbs. List.. **$211.00**

Consists of; 1—MA-17N amplifier (with tubes).
2—12" speakers.
2—25 ft. speaker cables and plugs.
1—Model 304 portable carrying case.
1—Astatic JT-30 microphone with 15 ft. cable and connectors.

MODEL RCB 2-CHANNEL REMOTE CONTROL BOX

A compact remote volume-control unit containing two volume controls. Provides independent or simultaneous operation from a remote position of two microphone channels of either the Model MA-25NR or the Model MA-77R. Can be used with up to 2,000-ft. of cable with negligible loss. Tone quality is not affected, and there is no inductive hum pick-up on either the control unit or cable.

RCB Remote-Control Box—List **$14.00**

207-54B

Audio Equipment by MASCO SOUND SYSTEMS

MC-126P-3

MC-126P-3 12-WATT MOBILE AMPLIFIER

HAS PHONOGRAPH WITH 3-SPEED MOTOR AND ALL-PURPOSE PICKUP WITH TURNOVER CARTRIDGE

Features: Two inputs, microphone and phonograph; Push-pull output; Separate microphone and phonograph control; Low battery drain; Ripple-free operation; Light weight but rugged; Approved by Underwriters' Laboratories, Inc.; Remote control permits within-easy-reach adjustment of amplifier controls.
Application: The MC-126P-3 and other models listed below are extremely compact mobile amplifiers built expressly for operation in police safety and traffic control work, transportation systems, ambulance service, fire departments, civil defense and other emergency work. Universal mounting fits under auto or truck dash board. Sturdy metal casing finished in two-tone gray and blue hammertone.

SPECIFICATIONS

Power Output: 12 watts, Class AB-1, at less than 5% distortion; peak power output 18 watts. **Inputs:** Two, 1 microphone and 1 phonograph. **Frequency Response:** ±3 db 100 to 8,000 cps. **Power Gain:** Microphone, 110 db; Phonograph, 75 db. **Controls:** Microphone, Phonograph, Tone, Off-On-Standby-Operate (Battery Saver) Switch. **Tubes:** 1-6SF5, 1-6SL7GT, 2-6V6GT, 1-7Z4 (rectifier). **Output Impedances:** 3.2, 8 and 15 ohms. **Hum Level:** 60 db below output level of 12 watts. **Power Consumption:** (MC-126P-3 and MC-126), AC, 60 watts at 117 volts; DC, 8 amps at 6 volts (battery); (MC-12P-3 and MC-12), AC, 60 watts at 117 volts; DC, 4 amps at 12 volts (battery). **Dimensions:** 12" x 6" x 8" high. Shipping Weight all models, 15 lbs.

RCM

MOBILE AMPLIFIERS

MC-126P-3—Phono-Top Mobile Amplifier, 6 volts DC, 117 volts AC, complete with tubes and cables. List Price..... $151.25
MC-126—Same, without phono. List Price..... $100.00
MC-12P-3—Phono-Top Model for 12 volts DC, 117 volts AC. List Price..... $159.00
MC-12—Same, without phono. List Price..... $107.50

MOBILE SYSTEMS

MAC-126P-3—Phono-Top Mobile System. Incl. MC-126P-3 Amplifier, 10" PM Speaker, 25 ft. cable, Astatic JT-30 Mike with 15' cable and connectors, case. List Price..... $216.25

MAC-12P-3—Above system with MC-12P-3 Amplifier. List Price..... $225.00

RMC Remote Control for above amplifiers—Clamps to steering post of car to permit within-easy-reach adjustments of phono and mike channels. List Price $14.50

SCHOOL SYSTEM AMPLIFIER

Features: 28 watt amplifier; two-way conversation; simultaneous or selective paging provides for up to 36 rooms; external phono provision; volume level indicator; input selector switch; provision for radio input, external microphone.
Application: May be used with up to 36 rooms. It assures ample power for each speaker and ample gain is provided for external microphone and phono pick-up. Speaker switches are connected for group or selective paging. A master switch permits simultaneous paging. Calls may originate from any room. Separate volume controls for level adjustment of incoming and outgoing calls and a Volume-level indicator are incorporated.
Provision made for the connection of an external phonograph to the system, which enables the distribution of music. Any standard radio may be adjusted for use with this system. Many of these advantages apply with equal force to hospitals, institutions, clubs, hotels and passenger ships.

SPECIFICATIONS

Power Output: 28 watts, Class AB-1 at less than 5% distortion.

Peak Power: 40 watts.

Inputs: External microphone, phono, radio, built-in intercom speaker.

Frequency Response: ±2 db 50 to 15,000 cps.

Power Gain: Microphone 130 db. Phonograph 85 db.

Controls: Separate incoming and outgoing volume controls, function selector switch, "Talk-Listen" switch, master call switch, station selector switches, power on-off switch, eye level control.

Tubes: 1-6SC7, 1-6SL7GT, 1-6SN7GT, 2-6L6G, 1-6U5, 1-5V4G.

Output Impedances: 80 ohm balanced line constant voltage output.

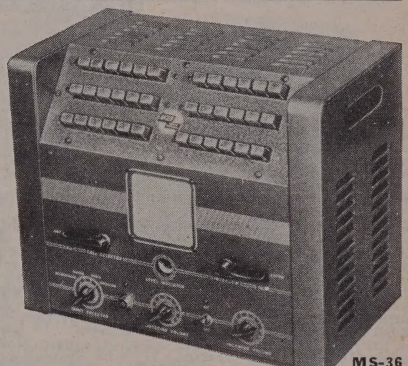
Hum Level: 64 db below output level of 28 watts.

Power Consumption: 145 watts at 117 volts, 60 cycles, AC.

Voltage: 105-125 volts, 60 cycles AC only.

Cabinet: Metal, finished in brown hammertone.

Dimensions: 16" x 9½" x 13" high



MS-36

WITH TUBES	List Price
MS-6 (for 6 rooms) Amplifier	$232.50
MS-12 (for 12 rooms) Amplifier	237.50
MS-18 (for 18 rooms) Amplifier	242.50
MS-24 (for 24 rooms) Amplifier	250.00
MS-30 (for 30 rooms) Amplifier	257.50
MS-36 (for 36 rooms) Amplifier	272.50

MC-25PN-3

All Masco Equipment Is Underwriters' Laboratories Approved

25-WATT MOBILE AMPLIFIERS

Features: Battery-saver standby switch; low battery drain; fused circuit; hum- and ripple-free operation; heavy-duty dual vibrator; low pressure pick-up; push-pull output. Operates just as efficiently from 6-volt batteries as from the 117 volt AC supply. It is a rugged,p owerful phono top amplifier expressly designed for sound truck and outdoor applications. Thee xtra-heavy-duty dual vibrator maintains steady voltage and frequency. The amplifier is provided with separate cables, fitted with rugged heavy-duty plugs and receptacles for each voltage supply. The **MAC-25PN Mobile Portable System** is ideally suited for locations where AC power is unavailable. The **MCO-25PN Outdoor Mobile System** is ideal for sound trucks and all other mobile applications. **Specifications—Model MC-25PN:** Power output is 25 watts, class AB-1, at less than 5% distortion peak power 40 watts. 3-microphone, 1-phono inputs. Frequency response ±2 db from 50 to 15,000 cps. Tubes: 4-6J7, 1-6SC7, 1-6SL7GT, 2-6L6G, 2-7Z4. Output impedances: 4, 8, 15, 125, 250, 500 ohms. Hum level is 64 db below output of 25 watts, AC and ripple free DC. For 105-125VAC-6VDC only

MC-25PN-3 Phono-top Mobile Amplifier—With power cables (with tubes). Shipping weight 44 lbs. List Price..... $250.00
Kit of Matched Plugs and Connectors..... $3.24

MAC-25PN-3 Portable Mobile System (with tubes). List Price..... $345.00

MCO-25PN-3 Outdoor Mobile System (with tubes). List Price..... $409.25

MC-25PC-3 Mobile Amplifier with Phono Top. Hinged Cover (with tubes). List Price..... $270.00

MASCO Sound Equipment

MES-18 PORTABLE SYSTEM

18 WATT SOUND EQUIPMENT

For small orchestras, medium-sized paging systems, etc. Suitable for groups of up to 500 people and areas to 400,000 cu. ft.

ME-18 AND ME-18P-3 AMPLIFIER SPECIFICATIONS

Power Output: 18 watts, peak, 24 watts. **Inputs:** 1 mic., 1 phono. **Input Sens.:** Mic., .005 v.; Phono, .25 v. **Controls:** Mic. Volume, Phono Volume, Tone (with AC On-Off), Phono motor switch. **Tubes:** 6SJ7, 6SC7, 2-6L6G, 5Y3GT. **Output Taps:** 2-4-8-15-500 ohms and 70 volt. **Frequency Response:** 50-15,000 cps, ±2 db. **Power Cons.:** ME-18, 93 watts; ME-18P-3, 107 watts. **Hum Level:** 56 db below full output. **Dimensions:** ME-18, 12" x 6¾" x 7¾" high; ME-18P-3, 12" x 10" x 8" high.

Masco Model ME-18 Amplifier—With tubes and cover. Shipping Weight, 17 lbs. List Price $77.50

Model ME-18P-3—With tubes and 3-speed phono. Shipping Weight, 26 lbs. List Price $112.50

Model MES-18 Portable System—Consists of ME-18 amplifier, Model 3040 Carrying Case and 2 built-in 12" PM speakers, 1 Model JT-30 hand microphone with 15' cable and connector, 2-25' 2-25' speaker cables and con. Shpg. Wt., 38 lbs. List $152.50

Model MES-18P-3 Portable Phono Top System—Same as MES-18, except includes ME-18P-3 amplifier. List Price $187.50

Model MEF-18 Fixed System—MES-18 System with 2-12" speakers mounted in Model 101 wall baffles replacing 3040 carrying case. Shipping Weight, 34 lbs. List Price $144.00

Model MEF-18P-3 Fixed System—Same as MEF-18 except with ME-18P-3 amplifier. Shipping Weight, 43 lbs. List $179.00

27 WATT SOUND EQUIPMENT

For large groups and paging in large, noisy areas. For resorts' churches, rodeos, carnivals. 117 v., 50/60 cps. U/L Approved.

ME-27 AND ME-27P-3 AMPLIFIER SPECIFICATIONS

Power Output: 27 watts, peak 40 watts. **Inputs:** 2 mic., 1 phono. **Input Sens.:** Mic., .005 v.; phono, .25 v. **Controls:** 2-Mic., Phono, Tone. **Tubes:** 6SJ7, 2-6SC7, 2-6L6G, 5V4G. **Output Taps:** 4-8-15-500 ohms, 70 volts. **Power Cons.:** ME-27, 100 watts; ME-27P-3, 115 watts. **Hum Level:** −55 db below 27 watts. **Frequency Response:** 50-15,000 cps, ±2 db. **Dimensions:** ME-27, 15" x 8" x 8" high; ME-27P-3, 15" x 8" x 9" high. Shipping Weight, Model ME-27, 30 lbs. With tubes and cover.

Masco Model ME-27 Amplifier—List Price $96.25

Model ME-27P-3—With tubes and 3-speed phono. Shipping Weight, 39 lbs. List Price $131.25

Model MES-27 Portable System—Consists of ME-27 amplifier, Model 3050 Carrying Case with 2 built-in 12" PM speakers, 1, Model JT-30 hand microphone with 15' cable and connector, 2-25' cables and connectors. Shipping Weight, 54 lbs. List $176.25

Model MES-27P-3 Portable System—Same as MES-27, except with ME-27P-3 Amplifier. Shipping Weight, 63 lbs. List $211.25

Model MEF-27 Fixed System—MES-27 system with 2-12" speakers mounted in Model 101 wall baffles, replacing 3050 carrying case. Shipping Wt., 46 lbs. List Price $162.90

Model MEF-27P-3 Fixed System—Same as MEF-27 except with ME-27P-3 3-speed phono top amplifier. Shpg. Wt., 55 lbs. List $197.90

IN-525 LOW IMPEDANCE MIKE INPUT TRANSFORMER

For conversion of any high impedance mike input to low impedance for use with low impedance microphones, and required when long lines are run. Multi-alloy shielded for low hum pickup, and with swivel joint to allow positioning in amplifier. Shipping Weight, 2 lbs.

Masco Model IN-525 Transformer—List Price $30.00

36 WATT SOUND EQUIPMENT

Mikes and phono may be mixed. Separate Bass and Treble controls. Available with Webcor 114 changer. U/L/Approved.

ME-36 AND ME-36R AMPLIFIER SPECIFICATIONS

Power Output: 36 watts; peak, 45 watts. **Inputs:** 2 mic., 1 phono. **Input Sens.:** Mic., .005 v.; Phono, .25 v. **Controls:** 2 Mic., Phono, Bass, Treble. **Tubes:** 2-6SJ7, 6SC7, 6SN7GT, 2-6L6G, 5V4G. **Output Taps:** 4-8-15-250-500 ohms, 70 volts. **Power Cons.:** ME-36, 130 watts; ME-36R, 155 watts. **Frequency Response:** 50-10,000 cps, ±2 db. **Hum Level:** −58 db below full output. **Dimensions:** ME-36, 15" x 8" x 8" high; ME-36R, 15" x 15" x 9" high.

Masco Model ME-36 Amplifier—With tubes and cover. Shipping Weight, 30 lbs. List Price $125.00

Model ME-36R Amplifier—With tubes and Webster-Chicago Model 114 3-speed changer. Shpg. Wt., 48 lbs. List $257.50

Model MES-36 Portable System—Consists of ME-36 amplifier with tubes, Model 3050 Carrying Case with two built-in 12" PM speakers, Model JT-30 hand microphone with 15' cable and connector, two 25' speaker cables and connectors. Shipping Weight, 58 lbs. List Price $205.00

Model MEF-36 Fixed System—Consists of ME-36 amplifier with tubes, four 12" PM speakers in Model 101 wall baffles, ModelJT-30 microphone with 15' cable and connector, four 25' speaker cables and connectors. Shipping Weight, 83 lbs. List Price $216.66

Model MEF-36R Fixed Record Changer System—Same as MEF-36 except includes W-C Model 114 3-speed changer. List Price $349.16

15 WATT MOBILE SOUND EQUIPMENT

For groups of up to 500 people. Very low hash level with DC operation. Standby battery saver switch. U/L Approved.

MM-15P-3 AMPLIFIER SPECIFICATIONS

Power Output: 15 watts, 20 watts peak. **Inputs:** 1 mic., 1 phono. **Sens.:** Mic., .005 v.; Phono, .25 v. **Controls:** Mic., Phono, Tone, Master Power, Standby, Phono Motor. **Tubes:** 6SC7, 6SL7GT, 2-6V6GT, 6AX5GT. **Output Taps:** 2-4-8-15-500 ohms and 70 volts. **Power Cons.:** 80 watts AC; 15 amps, DC. **Freq. Response:** 50-15,000 cps, ±2 db. **Hum and Noise:** −65 db below 15 watts. **Dimensions:** 12" x 10" x 8" high. Shipping Weight, 22 lbs.

Masco Model MM-15P-3 Amplifier—With 3-speed phono top, and turnover cartridge. Includes tubes. List $156.25

Model MMS-15P-3 Portable Mobile System—Consists of MM-15P-3 amplifier with tubes, Model 3040 Carrying Case with two built-in 12" PM speakers, Model JT-30 microphone with 15' cable and connector, 2-25' cables and connectors. Shipping Weight, 43 lbs. List $231.25

Model MMO-15P-3 Mobile Outdoor System—MMS-15-P3 system with 2 IB8 paging horns replacing Model 3040 and the two 12" PM speakers. Shpg. Wt., 57 lbs. List $251.00

27 WATT MOBILE SOUND EQUIPMENT

For missionary meetings, military installations, ball parks, etc. Mike and phono mixer. Extra-heavy vibrator. U/L Approved.

Power Output: 27 watts; peak, 40 watts. **Inputs:** 2 mic., 1 phono. **Input Sens.:** Mic., .005 v.; Phono, .25 v. **Controls:** 2 Mic., Volume, Phono Volume, Tone, Master Power, Standby, Phono Motor Off-On. **Tubes:** 2-6SC7, 6SJ7, 2-6L6G, 5V4G. **Output Taps:** 4-8-15-250-500 ohms, 70 volts. **Power Cons.:** 130 watts at 117 volts, 60 cps AC; 25 amps at 6 v. DC. **Frequency Response:** 50-15,000 cps, ±2 db. **Hum Level:** AC, −55 db below full output; DC, ripple-free. **Dimensions:** 12" x 11" x 8" high. Shipping Weight, 38 lbs.

Masco Model MM-27P-3 Amplifier—With tubes, 3-speed phono top and turnover cartridge. List Price $190.00

Model MMS-27P-3 Portable Mobile System—Consists of MM-27P-3 Amplifier, Model 3050 Carrying Case with two 12" built-in PM speakers, JT-30 hand mike with 15' cable and connector, two 25' speaker cables and connectors. Shipping Weight, 62 lbs. List Price $270.00

Model MMO-27P-3 Mobile Outdoor System—Model MMS-27P-3 with two Model PH reflex trumpets and two MA-25 driver units replacing the 12" speakers and 3050 carrying case. Shipping Weight, 90 lbs. List Price $336.75

60 WATT HEAVY DUTY EQUIPMENT

For airports, railroad yards, terminals, factories, etc. 70 and 140 volt constant voltage taps. U/L Approved.

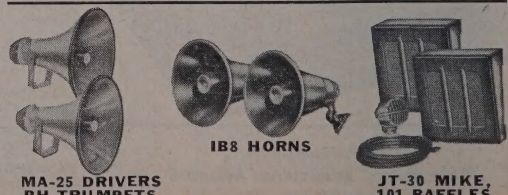
ME-60 AMPLIFIER SPECIFICATIONS

Power Output: 60 watts, 80 watts peak. **Inouts:** 2 Mic., 1 Phono. **Input Sens.:** Mic., .005 v.; Phono, .1 v. **Controls:** 2 Mic. Volume, Phono Volume, Bass, Treble (with On-Off). **Tubes:** 6SC7, 6SJ7, 2-6SN7GT, 2-807, 3-5Y3GT. **Output Taps:** 4-8-16 ohms, 70 and 140 volt constant voltage. **Hum Level:** −60 db below 60 watts. **Frequency Response:** 50-12,000 cps ±2 db. **Power Cons.:** 190 watts at 117 volts, 60 cps. **Dimensions:** 17" x 10" x 8½" high. Shipping Weight, 40 lbs.

Masco Model ME-60 Amplifier—With tubes and cover. List $197.50

Model MEO-60 Outdoor System—Consists of ME-60 amplifier with tubes, JT-30 hand mike with 15' cable and connector, three MA-25 driver units and three PH reflex trumpets. Shipping Weight, 95 lbs. List Price $375.00

Press-To-Talk Relay—For standby operation, factory installed. Specify when ordering and add to List Price $23.75



186-54B

Intercom Equipment

MASCO SOUND EQUIPMENT

CAM SERIES—DELUXE SYSTEMS

Systems comprising CAM Series components can be set up in the all-Master and the Single Master all-Remote systems as described above. In addition CAM Systems can be made up of mixed Master and Remotes in whatever combination of 5 and 10-station Masters and Remotes is required. Paging horns and amplifiers may be incorporated in the systems. A telephone type handset may be used with any Master for private Master-to-Master conversations. **Power:** 3½ watts output; consumption, 27 watts per Master on 117 volts, AC. **Tubes:** 6C4, 12AX7, 6V6GT, 6X5GT. **Speaker:** 4" Alnico 5 PM, 45-ohm voice coil. **Controls:** Master, Volume-Off-On; 5 or 10-station selector with Standby position; Push-Bar Talk-Listen switch with pilot light inside switch knob. Remotes, Push-Bar Talk-Listen on ACS and ACS-6, 6-position station selector on ASC-6, no controls on ACL. **Size:** 7⅜" x 6¾" x 5½" cast aluminum case, dark brown baked enamel. U/L Approved.

CAM-5 Master—For 5 additional stations. List Price.. **$74.00**
CAM-10 Master—For 10 additional stations. List Price. **$82.50**
ACS-6 Remote—With 6-position selector, push-bar. List **33.13**
ACS Remote—With push-bar talk-listen switch. List... **20.00**
ACL Remote—No controls. List Price..... **16.65**

MODEL JMR TWO-STATION SYSTEM

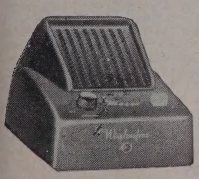
Consists of a master and a remote station. Master has its own Volume Control with On-Off switch and has separate "Press-to-Talk" switch and On-Off pilot light. The remote may be used for private or non-private operation. Has its own "Press-to-Talk" switch that allows it to originate call to master or upon installation, may be wired for non-private operation. The JMR system can also be used as a two-way paging system. Natural voice reproduction, ample sensitivity. Unbreakable cast-aluminum housing, walnut hammertone finish. Electrical specifications and size same as IJM Series below. Supplied complete with 50 feet of three-wire cable and complete instructions.

JMR Two-Station System—List Price..... **$56.70**

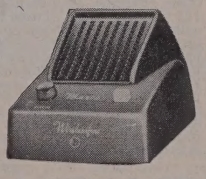
IJM SERIES—ECONOMY SYSTEMS

An economy series that can be used as an all-Master system or an all-Remote (with 1 Master) system. In all-Master systems any station may call any other station without crosstalk even though up to 5 pairs of stations are talking simultaneously. In an all-Remote system the Master can call any or all remotes, but only JR Remotes can call the Master. JL Remotes can talk to the Master only when called. Remotes can call only the Master, not other Remotes. Paging horn and amplifier may be introduced into either system. **Power:** 2.5 watts output; 20 watts, 117 volts AC or DC consumption. **Tubes:** 12AX7, 50C5, 35W4. **Speaker:** 4" Alnico 5 PM, 13-ohm voice coil. **Size:** 7¾" x 6¾" x 5½" high cast aluminum housing, dark brown baked enamel finish. **Controls:** Volume-Off-On, 5 or 10 station selector with Standby and All positions; Push-Bar Talk-Listen; JR Remotes have Push-Bar Talk-Listen switch. U/L Approved. **$45.90**

IJM-5 Master—For 5 additional stations. List Price... **$53.75**
IJM-10 Master—For 10 additional stations. List Price. **16.20**
JR Remote—List Price..... **15.20**
JL Remote—List Price..... **2.00**
Above models in White Baked Enamel. Add to List....



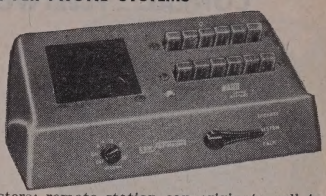
WIRELESS-FONE TWO-STATION INTERCOM



No wires or cable required—uses existing power lines. Just plug line cord into socket and Wireless-fone is ready to operate. Two-way communication on the same or different power circuits and over a considerable distance. Noise-Silencing Control, pre-set at the factory, keeps system quiet until actual use. Additional stations may be added. Pilot light On-Off indicator. No interference with radio sets, may be used on AC or DC current. **Voltage**—117 volts, AC or DC. **Power**—25 watts input, 2.5 watts output. **Tubes**—12AX7, 50C5, 35C5, 35W4 (rect.), 1N51 squelch diode. #47 pilot. **Frequency**—200 kc. **Speaker**—4" Alnico V. 13 ohm voice coil. **Controls**—1-Volume Control with On-Off, Push-Bar Talk-Listen switch with Lock-In-Talk. 7⅜" x 6¾" x 5½". Shipping Weight, 12 lbs. U/L Approved. **$95.00**

Masco Model WF-2—Two-station intercom. List Price
Masco Model SSW—Single stations. List Price..... **$47.50**

CON-FER-PHONE SYSTEMS



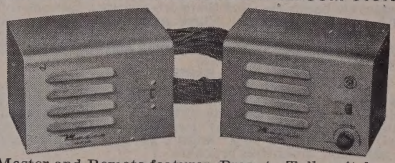
Available in 6 and 12 station masters. Remote available with or without Call Switch and with 6 position master Station Selector. **Features:** for master-to master-to remote inter-mix; for master-to-master installation; for master-to remote installation; remote station for two-way conversation with masters; remote station can originate call to masters; masters may have personal remotes; push-button station selection; Press-to-Talk switch with dictate position on master; individual or group conversation; volume control with On-Off switch; On-Off indicating light; AC-DC operation; finished in attractive walnut hammertone. U/L Approved.

SPECIFICATIONS FOR MASTERS AND REMOTES

MASTER. Voltage—117 volts AC or DC. **Power Output**—2.5 watts. **Power Consumption**—30 watts. **Controls**—6 and 12 push-button station selectors, volume control with On-Off switch. **Tubes**—1-12SJ7 amplifier; 1-50L6GT beam power amplifier; 35Z5GT rectifier. **MASTER AND REMOTE. Speaker**—4" Alnico V magnet, 13 ohm voice coil. **Finish**—Walnut Hammertone. **Dimensions**—Master: 12⅝" x 7½" x 5½" high. Remote: 6⅝" x 7⅛" x 5¼" high. **Shipping Weight**—Master 8 lbs., Remote 3¼ lbs.

Masco Model JMP-6—(Not illustrated) 6 station master with tubes. List Price..... **$71.28**
Masco Model JMP-12—(Illustrated) 12 station master with tubes. List Price..... **$83.16**
Masco Model JL—Remote, less call switch. List Price. **$15.20**
Masco Model JS—Remote, with call switch. List Price. **19.65**
Masco Model JS-6—Remote, with 6-position master Station Selector and call switch. List Price..... **$32.40**

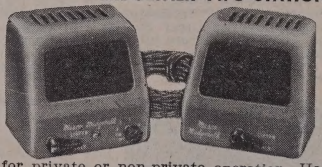
"SMALL TALK" TWO-STATION INTERCOM SYSTEM



Both Master and Remote features, Press-to-Talk switches permitting calls to originate at either. Volume controlled at the Master. Low cost makes it idea! for home or small office use. Remote can be left open for baby sitting or dictating, or it can be closed for privacy but still able to receive calls from the Master. Plugs into 117 volts, 50-60 cycles AC-DC. **Power:** 20 watts consumption, 1½ watts output. **Tubes:** 12AT6 Voltage Amplifier, 50C5 Beam Power, 35W4 Rectifier. Speakers: Both 4" Alnico V with 4-ohm voice coil. **Pilot Light:** NE-2 (neon). 4½" x 4⅝" x 4⅜" metal cabinet in brown hammertone. U/L Approved. Shipping Weight System 6½ lbs.

Masco Small Talk System—With 50 ft. cord. List Price **$29.95**
Masco Model ST—Additional Remote Station. List... **$10.00**

MIDGETALK TWO-STATION SYSTEM



MIDGETALK System consists of a Master and Remote Station—in beautiful mahogany finish. The Master has its own volume control with "On-Off" switch and has separate Press-to-Talk switch and "on-off" pilot light. The Remote may be used for private or non-private operation. Has its own press-to-talk switch that allows it to originate call to master or upon installation may be wired for non-private operation. The MIDGETALK system can also be used as a two-way paging system. **Voltage**—117 volts AC or DC. **Power Output**—2.5 watts. **Power Consumption** — 30 watts. **Tubes** — 12SJ7, Voltage Amplifier; 50C5, Beam Power Amplifier. 35Z5GT Rectifier. **Speakers**—3" Alnico V Magnet, 13 ohm voice coil. **Dimensions**—5" x 4½" x 5⅜". **Shipping Weight**—7 lbs.

Midgetalk Intercom System—Complete with master remote with 50 ft. of cable and instructions. List..... **$43.15**
Masco Model MLR—Additional Remote Station. List. **$14.40**

MODEL MM-5 MULTIPLIER

Converts Masco Midgetalk and Small Talk two-station systems into six-station Master and Remote systems. Can call any one or any group of up to five stations. Mounts under the Master unit. Two wiring methods: (1) Three-wire cable from Master to each Remote; or (2) a single cable from Master to all remotes starting with first station, ending with last (C-5 Cable for up to three Remotes, C-7 Cable for up to five Remotes). Multiplier uses no additional current. Brown metal 6¾" x 5⅜" x 2" high. Sloped panel.

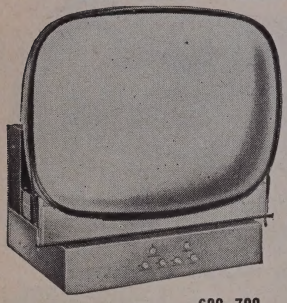
Masco Model MM-5—Multiplier. List Price..... **$11.00**

Intercom Cable—List Prices per Foot
C-3 per ft. **6½c** **C-5** per ft. **24c** **C-7** per ft. **29c**

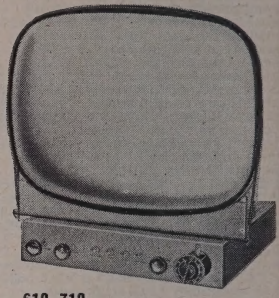
Custom Television Receivers, TV-Eye

CONRAC "FLEETWOOD" CUSTOM REMOTE TELEVISION RECEIVERS

- REMOTE CONTROL
- TRUE AUDIO-VIDEO FIDELITY
- SAME PERFORMANCE STANDARDS AS CONRAC TV STATION MONITORS



600, 700



610, 710

The Fleetwood Remote is a complete two chassis television system, built to professional standards. It employs 27 tubes in addition to the picture tube and provides audio power for a loudspeaker. The picture chassis is relay operated by the on-off switch of the Tuner, thus providing full remote control. Both Tuner and Picture Units are attractively finished in gray and black baked enamel. Each Fleetwood includes a gold finished, hinged escutcheon plate for easy access to the secondary controls. The separate Tuner Unit, with edgelit dial and individual channel pilot lamps includes the off-on, picture, volume, channel selection and fine tuning controls. The illuminated channel numbers are readily replaceable and a full set of numerals, from 2 to 82, is provided. The tuner is of the Super Cascode type and is completely adaptable for UHF reception, by a simple interchange of strips and insertion of the correct channel identification number. (It can also be used with a color picture chassis, Model 400.) The four video IF stages provide full four megacycle bandpass, and there are separate cathode followers for audio and video circuits. Three audio outputs are provided: (a) low level high impedance, (b) low level cathode follower, both for connection to existing music systems and (c) power amplifier to operate a loud speaker.

CHASSIS DIMENSIONS

Tuner Chassis: 7" high x 11½" wide x 8½" deep. **600 or 610 Chassis** (21EP4 or 21ZP4 mounted): 20⅞" high x 21⅛" wide x 24" deep. **700 or 710 Chassis** (24CP4A or 24TP4 mounted): 24⅝" high x 23⅛" wide x 22½" deep. **700 or 710 Chassis** (27EP4 mounted): 26½" high x 26¾" wide x 22⅞" deep. All chassis less picture tube and mounting brackets.

FLEETWOOD 600

Full Remote Control Receiver for 21" rectangular 70° picture tubes. Includes tuner chassis and picture chassis, supplied with 27 tubes (not including picture tube), 14 pilot lamps, 40 feet of cable, ion trap, all knobs and matching hinged cover for secondary controls. Shipping Weight, 65 lbs.
Conrac "Fleetwood" Model 600—Net Each **$264.50**

FLEETWOOD 610

Complete Television Chassis for 21" rectangular 70° picture tubes. Non-remote control. Supplied with 23 tubes (less picture tube), ion trap, all knobs and matching hinged cover for secondary controls. Shipping Weight, 50 lbs.
Conrac "Fleetwood" Model 610—Net Each **$199.50**

FLEETWOOD 700

Full Remote Control Receiver for 24" rectangular and 27" rectangular 90° picture tubes. Includes tuner chassis and picture chassis. Supplied with 27 tubes (less picture tube), 14 pilot lamps, 40 feet of cable, ion trap, all knobs and matching hinged cover for secondary controls. Shipping Weight, 65 lbs.
Conrac "Fleetwood" Model 700—Net Each **$289.50**

FLEETWOOD 710

Complete Television Chassis for 24" rectangular and 27" rectangular 90° picture tubes. Non-remote control. Supplied with 23 tubes (less picture tube), ion trap, all knobs and matching hinged cover for secondary controls. Shipping Weight, 50 lbs.
Conrac "Fleetwood" Model 710—Net Each **$219.50**

ACCESSORY KITS

All Accessory Kits contain mounting frame, laminated safety glass and royalite picture tube mask.
Conrac Model 621B Kit—For 21" cylindrical face glass picture tube as 21EP4. (18" x 24"). Shpg. Wt., 12 lbs. Net Each. **$15.00**
Conrac Model 621C Kit—For 21" spherical face glass picture tubes as 21ZP4. (18" x 24"). Shpg. Wt., 12 lbs. Net Each **$15.00**
Conrac Model 724B Kit—For 24" rectangular glass 90° picture tubes as 24CP4A or 24TP4. (20½" x 25"). Shipping Weight, 15 lbs. Net Each **$25.00**
Conrac Model 727B Kit—For 27" glass 90° picture tubes as 27EP4. (24" x 30"). Shipping Weight, 22 lbs. Net Each. **$25.00**

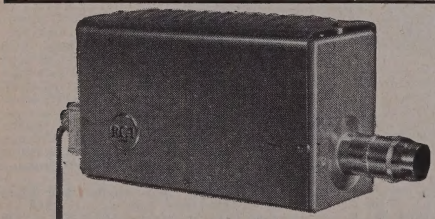
MOUNTING KITS

All mounting kits include tube supports, tie-down straps and hardware for mounting picture tube on chassis.
Conrac Model 601B Kit—Mounts 21" glass tubes, as 21EP4 and 21ZP4, on Model 600 or 610. Shpg. Weight, 2 lbs. Net Ea. **$3.00**
Conrac Model 704B Kit—Mounts 24" rectangular glass tubes, as 24CP4A or 24TP4, on Model 700 or 710. Shipping Weight, 3 lbs. Net Each **$6.00**
Conrac Model 707B Kit—Mounts 27" glass tubes, as 27EP4, on Model 700 or 710. Shipping Weight, 5 lbs. Net Each **$6.00**

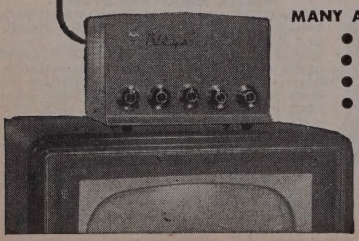
ASSOCIATED EQUIPMENT

Conrac Model 681 Distribution Amplifier—For use with Remote Control System to operate up to eight picture chassis from a single Remote tuner. Two or more of these amplifiers may be connected together. 6" H. x 11¾" W. x 8½" D. Net... **$135.00**
Conrac Model 2 HFM Cable Set—For operating two picture chassis from a single remote tuner. Works equally well with one 600 S. and one 700S, two 600 S or two 700 S. Net Each. **$4.50**
Conrac Model 650 Remote Tuner—Same model used in above sets, For use only with one or more 700 S or 600 S chassis. (Note: same channel received on all screens). Net Each **$119.75**
Conrac Model 44 Tuner Cabinet—Hardwood veneer, 12" W x 8" H. x 9½" D., mahogany or walnut. Net Each..... **$19.95**
Blonde or maple. Net Each **$21.95**
Unfinished..... **$16.95**

RCA TV-EYE



COMPLETE CLOSED CIRCUIT TELEVISION



MANY APPLICATIONS—
- IN HOMES
- IN INDUSTRY
- IN OFFICES
- IN SCHOOLS

This is RCA's famous TV-Eye. It's an amazingly compact little camera, scarcely larger than a 16 mm movie camera, plus an ingenious control unit. The control unit can be hooked up to any three channels of a standard TV receiver and plugged into any 115 volt AC outlet. These two units are then ready to operate as a closed circuit television chain. The system will find many uses in institutions, industry, sales and in the home. **In Industry:** View hazardous operations in safety; monitor automatic machine operations; inspections; training. **In Institutions:** Use in classrooms; keep track of patients; observe operations. **In Sales:** Fine for sales promotion, especially for TV; show work performed in kitchens or bakeries and cafes. These are only a few of the many applications of low-cost TV Eye. Many are in use today, paying for themselves many times over, in offices, hotels, convention halls, factories, railroad yards, stores, schools, hospitals, and even in homes.

SPECIFICATIONS

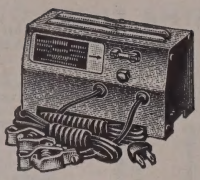
Electrical: Puts out modulated RF signal which can be fed directly into the antenna terminals of any standard TV receiver. Will tune between channels 2 and 6. **Power:** Consumes only 90 watts on 115-volt AC. **Wiring:** Between Camera and Control Box—Multi-conductor cable with minimum of 12 leads; Two coaxial cables, RG59AU and RG58AU. Between Control Box and Receiver—Any standard 300-ohm transmission line. (Cables not included). **Camera Mounting:** Base has socket for standard ¼"—20 bolt, fits any standard camera tripod. **Camera Lens:** Use any standard 10mm movie lens of reasonable quality and speed. Threaded to fit C-Mount lenses. **Tubes:** Camera—3-6U8, 1-6198 Vidicon; Control Unit—1-6AS6, 1-OA2, 1-6BQ6GT, 3-12AT7, 1-12AU7. **Size:** Camera, 11⅜" x 5¼" x 4". Control Unit, 11" x 8" 8½". **Weight:** Camera, less lens, 4½ lbs. Control Chassis, 18 lbs.
RCA TV-Eye—Less lens and cable.
Net Each..... **$980.00**

698-55A

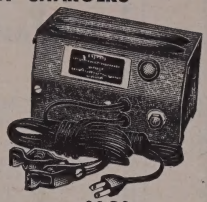
Mallory Chargers, Power Packs

BATTERY CHARGERS

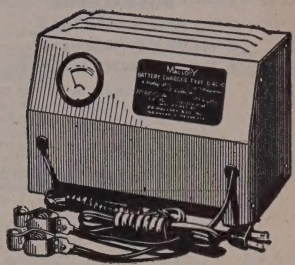
Mallory battery chargers provide convenient, efficient and economical charging of any storage battery used in ignition systems and in radio power supplies. Taper charging is designed into all Mallory chargers. These units may also be used as low voltage power supplies. Made in five models covering completely, the charging field from battery boosters to fast chargers. Conservatively designed with protected circuits and meters wherever required, battery clips, ample AC and DC leads provided. All models designed for operation on 115-volt 60-cycle AC lines and are completely portable. The heart of these units is the Mallory Magnesium-Copper Sulfide all-metal rectifier, which is unaffected by temperature, able to withstand considerable abuse, and is self-healing.



6AC4



6AC6



6AC10

Mallory No.	Nom. Bat. DC Volts	Max. Charge Rate DC Amps.	Tapered Rate DC Amps.	Size, Inches H	W	L	Shipping Weight, lbs.	Net Each
6AC4	6	4	2	4 7/16	7 3/8	3 5/16	4 3/4	$11.30
6AC6	6	6	4	4 7/16	7 3/8	3 5/16	7	15.30
6AC10	6	10	7	6	8	4 1/4	12 1/4	23.28
12AC5	12	5	3	6	8 1/4	4 1/4	10 3/4	25.30
6AC75*	6–8	75		15	6 1/2	7 1/4	34	109.50

*Fan cooled with 6-position charge control switch and cable rack.

CHARGER ACCESSORIES

Mallory No. R-652—polarized dash receptacle and plug. Fits all models except 6AC75. Net Each..... $1.20

Mallory No. R-655—Charger plug used as convenient means of charging car battery through cigarette lighter socket Net Each..... $1.20

NEW MALLORY CHARGERS WITH SELENIUM RECTIFIERS

These new units are smaller in size, less bulky and provide greater portability and increased operating efficiency. Both models are supplied with a 6-foot rubber covered line cord. The special universal output socket accommodates either the R-670 output cable or the R-675 cable, both of which are listed in table below. Neither model is supplied with output cable.

Model No.	Nom. Battery DC Volts	Max. Charge Rate, DC Amps	Tapered Rate DC Amps	Approx. Charge, Amp-Hrs., in 1 Hr.	6 Hrs.	10 Hrs.	14 Hrs.	Max. Cont. DC Amps as Pwr. Suppl.	Charging Indicator	Dimensions H x W x D, in Inches	Net Each
6SAC4	6	4	2	..	20	30	42	3	None	4 5/8 x 4 1/4 x 4 3/8	$10.00
12SAC5	12	5	3		25	40	56	4	Light	7 7/8 x 6 1/2 x 5 3/4	24.00
R-670	Output Cable, Equipped with Battery Clips.....										1.30
R-675	Output Cable, Equipped with Cigarette Lighter Plug.....										1.49

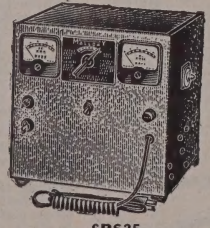
MAGNESIUM-COPPER SULFIDE RECTIFIERS

Mallory Magnesium-Copper Sulphide rectifiers are rugged, dependable units for applications requiring low DC voltages at medium and high currents such as battery eliminators and chargers, electroplating, DC filament voltage supplies, solenoid and relay operation etc. All metal in construction, not sensitive to temperature, withstand a great deal of abuse, operate from —90° to +265°F. Rectifying film self healing. These rectifiers are available in either foot, bolt, or stud mounting. Universal mounting hardware provided wherever possible or practical. To designate the type of mounting hardware provided, the following prefixes are placed before the stock No.: **IB** for insulated bolt; **B** for grounded bolt; **F** for grounded foot; **IF** for insulated foot; **IS** for insulated stud. **P** suffix designates reverse polarity stacking. Center terminal is DC positive: **J** suffix designates universal construction with loose mounting feet for foot, bolt, or stud mounting. All rectifiers are single phase, full wave, bridge type.

Mallory No.	Max. AC Volts No Load	Full Load	Approx. DC Volts Ind. Load	Res. Load	Cap. Battery Load	Max. DC Amps Con. Duty	Int. Duty	Size Inches L	W	H	Net Each
IB4R	3.6	3.2	1.5	1.7	2.5	1.5	5.0	1	9/16	7/8	$1.60
IB8R	7.2	6.4	3.1	3.4	5.1	1.5	5.0	1 3/8	9/16	7/8	1.90
IB12R	10.8	9.7	4.8	5.2	7.8	1.3	5.0	1 3/4	9/16	7/8	2.16
IB12L5	10.8	9.7	4.5	5.0	7.6	4.5	15.0	2 1/2	2 1/8	2 5/8	3.90
IB12C1J	10.8	9.8	4.6	5.1	7.7	3.2	24	2 3/4	1 1/4	1 5/8	4.36
IB12C3	10.8	9.7	4.5	5.0	7.6	4.5	24	2 3/4	1 3/4	2 1/8	4.53
IB12C5	10.8	9.7	4.5	5.0	7.6	5.3	24	3	2 1/8	2 5/8	4.93
F16C3	14.4	13.0	6.1	6.8	10.2	3.9	24	3	1 3/4	2 1/8	5.89
1F16CB7M	14.4	12.8	5.9	6.6	9.9	6.0	24	3	2 1/2	3 1/16	6.79
F20C7	18.0	16.2	7.6	8.4	12.6	4.8	24	4 3/8	2 1/2	3 1/16	8.49
IS24C7J	21.6	19.4	9.0	10.1	15.1	4.0	24	4 3/4	2 1/2	3 1/16	8.39
IS24B9	21.6	19.1	8.5	9.6	14.4	11.0	24	7 1/2	3 1/2	4 3/4	11.95
IS28C7J	25.2	22.7	10.7	11.7	17.8	4.3	24	6	2 1/2	3	10.19
F16HIP	14.4	13.1	6.3	7.0	10.4	2.2	24	2 1/4	1 1/2	2	4.70
F20HIP	18.0	16.4	7.9	8.7	13.0	2.0	24	2 3/4	1 1/4	2	5.76
F24HIP	21.6	19.7	9.6	10.4	15.7	1.9	24	3	1 1/4	2	6.86
F28HIP	25.2	23.0	11.2	12.2	18.4	1.7	24	3 1/4	1 1/4	2	7.93
F32HIP	28.8	26.2	12.8	14.0	21.0	1.6	24	3 3/4	1 1/4	2	9.02

RECTOPOWER SUPPLIES

6RS10

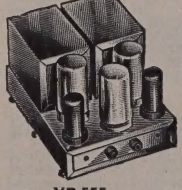


6RS25

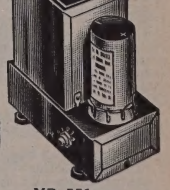
All models designed to operate from 110-120 volts, 60 cps and are equipped with accurate reading DC voltmeters and DC ammeters, self-reclosing overload circuit breakers in the DC circuit, fuse protection in the AC circuit and an "on-off" switch. A continuously adjustable transformer-rotor system is included in all models to provide precise adjustment of the output voltage to any value from 0 to rated output. All models filtered to a RMS ripple of 1 volt or less, and are equipped with large capacity electrolytics to provide power storage for the operation of vibrator-powered equipment. Dual range units are equipped with a new, simplified, automatic voltage regulating system which maintains the output voltage relatively constant, as the load changes from no load to full rated load. All models readily portable for use on bench. 6RS10, 12RS5 and 12RS6D provided with two keyhole slots for wall mounting. All others provided with 4 rubber pads.

Mallory No.	DC Output DC Volts Rating	Range	DC Amps Cont.	Interm.	Approx. Output Reg.	Approx. AC In. Watts	Dimensions H x W x D	Shpg. Wt. Lbs.	Net Each
6RS25-1	6	0-8	25	40	15%	325	11x10 1/2 x8 3/4	33 1/2	$89.50
12RS6D	6 or 12	0-8 or 0-16	10 or 6	20 or 14	95% or 65%	150	6 3/4 x10 3/8 x5 1/2	12 1/2	39.95
12RS14D	6 or 12	0-8 or 0-16	25 or 14	40 or 20	15% or 6%	325	11x10 1/2 x8 3/4	35	99.50
28RS15D	28 or 14	0-32 or 0-16	15 or 30	25 or 50	5% or 8%	800	11x10 1/2 x15 3/8	60	189.50

MALLORY VIBRAPACKS



VP 555



VP 551

Equipped with built-in noise suppressor equipment. Type VP-555 also includes an efficient low-frequency hum filter. Type VP-557 incorporates the first input filter condenser only. Other vibrapacks do not include high-voltage hum filter. High voltage filter requirements are similar to equivalent AC power packs.

Mallory No. VP-	Nominal Output Voltage	Max. O.P. Ma.	Net Each
540*	250	60	$19.80
551	125-150-175-200	100	14.52
552	225-250-275-300	100	17.34
553	125-150-175-200	100	16.17
554H	225-250-275-300	100	18.99
555H	300	200	34.32
557	400	150	34.32
G556	225-250-275-300	100	18.99

Nominal operating voltage, 6.3 except Model VPG556, 12.6.

*Includes complete audio filter.

Ward Auto Aerials and Mounts

DURA-RAMIC AUTO AERIALS

- MADE OF FIBERGLAS
- SIX BRILLIANT COLORS

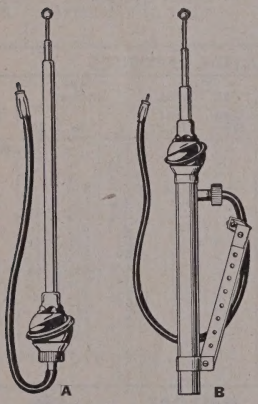
Specially engineered for top performance, durability and corrosion resistance. Molded of Fiberglas*, millions of fibers of glass woven together, impregnated with resin and molded under terrific pressure. Completely protects the imbedded electronic wires from all bad effects of weather. Color impregnates the fiberglas*, cannot fade, rust or wear off. Will bend almost double without damage, almost indestructible. Thoroughly field tested. Aerials are 38" long, and are mounted in the famous Ward "8" Ball. All available in six colors: Yellow, Brown, Red, Green, Blue, and White. State color when ordering.

Ward Model TGF-1—Front mount with 54" lead-in included. Net Each..... $4.77

Ward Model TGR-1—Rear mount with 19½ ft. lead and extension. Net Each.. $7.17

Ward Model TGT-1—"Gay Blades" twin rear mount. 19½ ft. lead and extension. 3-way connector, 5 clips. Net Each..... $11.97

*R.T.M. O. C. F. Co.



TOP COWL AND FENDER MOUNTS

Model TCF-3B Fig. (A). Smart looking "8 Ball", 22" high collapsed. The answer to every installer's dream—one man installs in five minutes from the outside. 3 section, 56", collapses to 22". Ward 36" coaxial lead cable included. $3.54

Ward Model TCF-3B. Net Each..

Model TCF-3C—Same as TCF-3B, but with 54" lead. $3.69

Net Each.....

Model TCF-2B—Same as Model TCF-3B, but only two sections. $3.03

Net Each.....

Model DCF-3 Fig. (B). Phantom disappearing antenna—100% shielded against engine noises and completely water sealed. 3 section, 5¾" exposed when collapsed. Universal swivel bracket for mtg. Ward 36" coaxial lead cable included. $4.59

Ward Model DCF-3. Net Each...

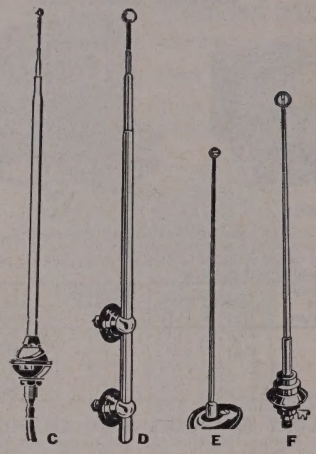
Ward Model DCF-3A Fig. (B). Same as above, but with 54" lead. Net Ea. $4.77

Model TA-3 Fig. (C). This is the economy auto antenna. A high quality top cowl model that offers attractive appearance and delivers fine performance but sells for an amazingly low price. Fits top cowl of any model car. Installed quickly and easily entirely from outside of car. Has three sections that telescope to 56 inches. Constructed of durable chrome plated tubing with "Eight-Ball" mounting insulator. 36" polyethylene insulated, vinylite covered High-Q lead-in with coaxial type connector. Complete easy-to-follow instructions.

Ward Model TA-3— $2.39

Net Each.....

Ward Model TB-3—Same as above but with 54" lead-in. Net Each..... $2.49



SIDE COWL AND FENDER MOUNTS

Model SC-8 Fig. (D). "Long Ranger", a favorite in low signal strength areas where its extra length provides finer reception. 4 section, 100". Sturdy construction assures trouble-free service. Ward 36" coaxial lead cable included. $4.59

Ward Model SC-8. Net Each....

Model SC-6 Fig. (D). "Sky Queen", same quality construction and design as "Long Ranger" above except 3 section tube assembly, 66". $3.27

Ward Model SC-6. Net Each....

Model SC-3A (Fig. D)—"Master." Beautifully designed two stanchion, three section side cowl or fender mount. Ward quality tubing, anti-rattle construction and insulation throughout. Has three sections, 66". EZ-on installation. Ward 34" Elektran lead cable.

Ward Model SC-3A—Weight approx. 13 oz. Net Each..... $2.43

ROOF TOP AND MOTORCYCLE MOUNTS

Model SPP-18 Fig. (E). 21" rod for intercommunication on 140-165 mc band. Simplest installation, no cutting of car upholstery. Ward 12 ft. coaxial lead cable included. Perfect for taxicabs, police, fire departments, radio telephone and radio dispatched services. $3.96

Ward Model SPP-18. Net Each..

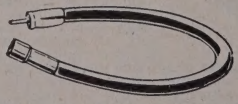
Model SPP-6 Fig. (F). Motorcycle ring type antenna. Flexible, durable 42" whip rod mounted in a heavy shock mounting base, with safety ring tip. $5.55

Ward Model SPP-6. Net Each...

Model SPP-26 Roof-Top Base (Not Illus.). Permits sturdy, flexible roof-top mounting of whips. Minimizes effects of body shielding and distorted ground plane. Heavily plated to prevent corrosion. Includes spring and base insulator, pads, and back-up plate. $7.50

Ward Model SPP-26 Base—Net..

LEAD EXTENSION CABLE



Provides additional lead length required for fender installation. Made of finest polyethylene insulation, wire shield braid, oil and abrasion-proof vinylite. All leads with connectors.

Ward Model C- 8 Lead 12"—Net.. 54c

Ward Model C- 9 Lead 18"—Net... 72c

Ward Model C-12 Lead 24"—Net... 87c

Ward Model C-41 — 9-foot lead extension with capacitor. Net Each $2.37

Ward Model C-42—15 foot extension with capacitor. Net Each.... $3.30

Ward Model 15-1—36" lead. Net..... $1.02

POLICE-TYPE ANTENNAS AND MOUNTS

Universal Swivel Mounts

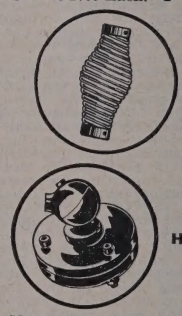
Antennas built for the hardest mobile use. Separate components may be combined to meet any requirements. These rear mounting transmitting antennas are designed for the 25-45 mc. services. Base mounts in such a way as to allow the whip rod to be held vertically, regardless of contour of the vehicle body.

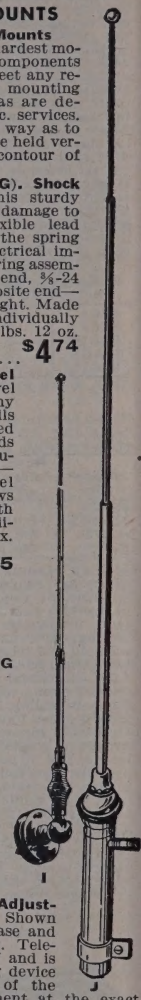
Model SPP-3A (Fig. G). Shock Mounting Spring. This sturdy spring is used to lessen damage to the whip rod. A flexible lead through the center of the spring maintains constant electrical impedance through the spring assembly. ⅜-24 stud on one end, ⅜-24 tapped hole on the opposite end—approximately 6" in height. Made of oil-tempered wire. Individually packed. Approx. wt. 2 lbs. 12 oz.

Ward Model SPP-3A. Net Each..... $4.74

Model SPP-3 Swivel Base (Fig. H). Swivel base for mounting at any desired point. Half balls of cast aluminum tapped ⅜-24 to accept whip rods and shock springs. Insulator of black bakelite—rubber gaskets—steel back-up plate. All screws are Allen head type with wrenches supplied. Individually packed. Approx. wt. 3 lbs. 4 oz.

Ward Model SPP-3. Net Each. $7.95





Model SPP-12 (Fig. I). Adjustable 2-section rod. Shown mounted with swivel base and shock mounting spring. Telescopes from 85" to 103" and is equipped with a locking device that permits removal of the whip rod and replacement at the exact previous length. Heavy wall, hard-drawn brass tubing—threaded ⅜-24 to fit either SPP-3 Base or SPP-3A Spring. Rod same as SPP-3B below. Individually packed Approx. wt. 2 lbs. 10 oz. $13.50

Ward Model SPP-12. Net Ea...

Model SPP-3B (not illustrated). **Single Rod.** Special alloy whip rod of maximum resilience and durability. 84" Single Rod for proper use in the range of 30 to 45 mcs. Non-corroding, stainless steel tapered for stress distribution. Base adapter threaded ⅜-24 to permit mounting on SPP-3 Base or SPP-3A Spring. Individually packed. Approx. wt. 2 lbs. $6.90

Ward Model SPP-3B. Net Each..

Model SPPB-71 (Fig. J). Emergency Antenna. Non-telescopic construction exactly duplicates standard automotive model in appearance. Gives perfect disguise for detective or patrol service. Whip removable for quick servicing. For high or low band service. 55" permanent whip eliminates contact troubles. Lead take-off accepts any standard AN connector.* Used as short ¼ wave vertical for 25-44 mc service. "J" antenna with car body as short leg of "J" for 152-162 mc service. Approx. wt. 2 lbs. $13.50

Ward Model SPPB-71. Net Ea.

*Lead not included.

Mobile Antennas, Mounts, Suppressors

TENNA AUTOMOBILE ANTENNAS

(FORMERLY RADELCO)

THE "SCREW BALL"

Quickly installed without any special tools. Angular adjust for every type fender or cowl. 3-section. Length, 57".
Model EZ-3—Net Each.. $3.06

MODEL EZ-2

Same as Model EZ-3 it has 2 longer sections. Extends to 49". Net Each..... $2.13

CONCEALED AERIAL

Completely new design concealed type aerial. Ball-joint metal mounting base adjustable flat to 30°. Waterproof construction. Large seamless shield tube reduces capacity losses. 48" radar type lead cable.
Model FD-3—3 section; 4"-55" long. Net Each..... $4.59

SIDE COWL AERIALS

Model CS-3 Champion—High quality chrome plated brass tubing aerial. Screw-in connector, metal capped ceramic insulators. 3 sections, 66" long. Net Each..... $2.49
Model RAD-3—3 sections 70" long. Net Each..... $3.36
Model RAD-4—4 sections, 92" long. Net Each..... $3.96
Model RAD-5—5 sections, 112" long. Net Each..... $4.59

MONARCH COWL FENDER

Ball-joint metal mounting base, adjustable from flat to 30°. Base sufficiently large to cover largest holes. Waterproof construction. Holds angular adjustment permanently. 36" cable
Model MH-3B—3 sections, 57" long. Net Each..... $3.48
Model MH-3C—3 sections, 70" long. Net Each..... $3.84

Model MH

Model CO

ROTO-LOK COWL FENDER

Easy mounting, all tightening outside. Half-inch mounting hole. Chrome plated mounting base. Exclusive VISE-LOCK eliminates clumsy braces. Fits any fender or top cowl. 36" radar type cable.

Model CO-3A—3 section, 57" long. (Not illus.) Net Each..... $3.18

ROOF TOP ANTENNA

MODEL MR-1

Quick mounting roof top antenna, embodying the exclusive "Screw-ball" feature for ease of installation. Installed entirely from the outside. Complete with 11' of coaxial cable. Replaceable mast.
Net Each.... $3.06

COMMUNICATION ANTENNAS

SPRING TEMPERED STEEL MASTS

Made of chrome silicon steel, this mast has exceptionally high tensile strength . . . can be bent 90° and still return to its original vertical position. It is taper ground with a corrosive resistant surface finish, fits either MB-1 or MB-2 mounting base or any standard base.

Model No.	Length	Shpg. Wt., Lbs.	Net Each
MM-60	60"	1.0	$3.24
MM-72	72"	1.1	3.24
MM-84	84"	1.2	3.39
MM-96	96"	1.4	3.84

"HOT-ROD" MODEL PT4 AUTO ANTENNA

Police type antenna for the "hot-rod" enthusiast. Four sturdy sections. Ninety-two inches when extended. Fifteen-foot coaxial lead. Uses MB-1 swivel mounting base.
Model PT-4—
Net Each..... $5.97

SWIVEL BASES AND SPRINGS

Swivel bases and springs for mounting antennas on automobiles. **Swivel base** has adjustable split-ball with positive lock to maintain angular adjustment at all times. Permits mast to be vertical regardless of body contour. Indented head locking screw with hex wrench furnished. Insulator mounting plate is black bakelite with moisture proof rubber gasket and steel back plate. **Springs** are oil tempered heavy spring steel to withstand toughest shocks. Absorb extreme vibration. MBS-1 is standard strength steel spring, while MBS-2 is heavy duty spring for heavier masts. $2.73
Model MB-1—Swivel Base. Net.. $2.
Model MB-2—Spring and Base... $3.96
Model MBS-1—Standard Spring. $1.38
Model MBS-2—Heavy duty Spring..... $1.98

RADAR LEAD CABLES

Radar type ultra high "Q" coaxial cables with polythylene insulation and 100 per cent shielding. **Type L** has aircraft connector to aerial and pin plug. Extension **Type LE** has male and female pin plug fittings.

Model	Length	Net Each
LE-12	12"	$0.51
LE-24	24"	.72
LE-36	36"	.90
L-36	36"	.90
L-48	48"	1.05

ICA CONNECTORS AND ADAPTERS

No. 2347 — Antenna Connector. Net.. 7½c

No. 2348 — Standard Fuse Holder. Net. 12c

No. 2349—Jumbo Fuse Holder 2½" long x ½" wide
Net Each..... 20c

No. 2372 — Lead-in Adapter — converts standard leads to Motorola Fittings.
Net Each..... 20c

MALLORY SUPPRESSORS

AM—For ammeter and gauge suppression. **FM**—For Ford generator suppression. **DL**—For domelight suppression. **RF**—For vibrator hash suppression. **CA**—For general suppression in marine and aircraft applications.
Wax impregnated cartridges assembled in various style housings. Type AG is round type with flexible lead, well protected from moisture but not hermetically sealed. Type AS is hermetically sealed, provides low impedance and is ideal for extreme climatic conditions. **Mounting**—Types AM-454 and RF-481 are held in place by the connecting wires or with TH clips. All others have own self-contained mounting features.

Mallory No.	Cap. Mfd.	W. V. D. C.	Net Each
RF481	.5	50	$0.54
RF482	1.0	50	.69
CA275X	4.0	50	1.80
AS125	.01	100	.72
AG442	.05	100	.48
AG443	.05	100	.60
AS145	.1	100	.84
AS165	.25	100	.90
AS185	.5	100	1.05
FM441	.5	100	.51
RF480	.5	100	.48
AG450	.5-.5	100	.90
FM442	.5	160	.39
AG444	.25	200	.36
DL445	.4	200	1.35
AM454	.5	200	.39
AG451	.5	200	.39
AG453	.5	200	.90
AG452	1.0	200	.54
AS525	.01	500AC-DC	.81
AS545	.1	500AC-DC	.96
AS565	.25	500AC-DC	1.20

CONTINENTAL SUPPRESSORS

DISTRIBUTOR SUPPRESSORS

Continental Distributor Suppressors are made to standard tested value of 10,000 ohms.
Net **T-24**..... 21c
C-11..... 18c

Con.	Mounting	Cable Conn.
C-11	Cable connection	Both ends, screw wire
T-24	Elbow-snap	Screw wire in

SPARK PLUG SUPPRESSORS

Spark plug suppressors have resistance value of 10,000 ohms.
Net **S20A**..... 21c
Others..... 18c

Con.	Mounting	Cable Conn.
S-19	Vertical-snap	Term. snaps on
S-21	"U" bracket	Term. snaps on
S-23	Elbow-flex. snap	Term. snap on
S-20A	Elbow-snap	Cable screws in

SPARE PARTS LIST

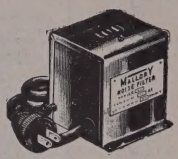
	Net Each
P-118—Bayonet adapter (Delco)	$0.06
P-119—Plastic ball tip	.03
P-120—Male pin plug	.06
P-301—Mast for RAD-3	1.47
P-304—Mast for CO-3A	1.62
P-307—Mast for MH-3	1.62

699-55A

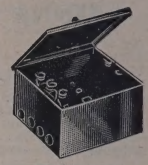
Interference Filters

MALLORY APPLIANCE AND HEAVY DUTY FILTERS

TYPE X


TYPE LC

TYPE Z


TYPE LB

TYPE X APPLIANCE FILTERS

For use with plug-in type appliances where straight capacity type filters are sufficient. Single and dual capacitor filters in round metal housings for insertion between appliance cord and wall outlet. Male prong and female slot terminals.

Mallory Type XI is for relatively slight interference. Size: 1⅜" x 1¾". Rated 110 volts, 5 amperes. Net Each..... **96c**

Mallory Type X3—Has greater efficiency than Type XI. 1⅜" x 2 1/16". 110-220 volts, 5 amperes. Net Each..... **$1.08**

Mallory Type X5 is triple capacity filter. Size 1⅜" x 2 1/16". 110-220 V. 5 amps., equipped with binding post for connection to appliance or motor frame. Net Each..... **$1.62**

Mallory Type X6—For medium interference. Furnished in rectangular brown plastic case. Size 1¼" x 2" x 1". Rated 125 volts AC-DC, 15 amperes. Net Each..... **96c**

PORTABLE HEAVY-DUTY FILTERS

For portable plug-in applications where severe interference is involved. Combination inductance-capacity filter housed in rectangular metal case. Ample line cord with male plug for insertion in wall outlet, female receptacle for appliance. Binding post for return lead to appliance or motor frame. Size: 3 1/16 x 2 15/16 x 3 9/16.

Mallory Type LC5—Rated 115-220 v. AC-DC, 5 amperes. Net Each..... **$6.75**

Mallory Type LC10—Rated 115-220 v. AC-DC, 10 amperes. Net Each..... **$9.00**

TYPE Z APPLIANCE FILTERS

For use with plug-in type appliances where inductance-capacity continuation filters are needed. Single and dual inductance-capacity filters housed in round metal containers for insertion between appliance cord and wall outlet.

Mallory Type Z2—For medium interference. 1⅜" x 2 11/16". 110-220 v. 3 amperes. Ground return lead. Net Each..... **$1.32**

Mallory Type Z4—Is dual inductance-capacity filter for severe interference. 1⅜" x 2 15/16" 110-220 v. 3 amps. Net Each..... **$1.50**

Mallory Type Z6—Same as above except with ground return lead. 1⅛" x 3¼". 110-220 v. 3 amps. Net Each... **$2.16**

Mallory Type Z8—Same as Z6 except return lead is to motor frame or appliance. Net Each..... **$2.16**

TYPE LB HEAVY DUTY FILTERS

For permanent installation wherever heavy-duty filters are required. Heavy duty choke-capacity combination sealed in rectangular case and housed in heavy gauge metal cut-out box. Heavy, flexible leads for splicing into line wiring.

Mallory No.	Rating	Size	Net Each
LB-10	220 V. 10 amps.	6½"x 6½"x4"	$10.50
LB-20	220 V. 20 amps.	10¼"x10¼"x6"	28.50
LB-40	220 V. 40 amps.	12"x10¼"x6"	35.25

AEROVOX INTERFERENCE FILTERS

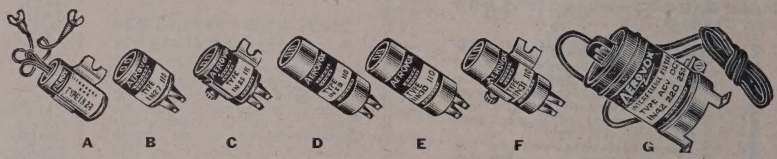

A B C D E F G

Fig. A. TYPE IN-23 INTERFERENCE FILTER—For elimination of interference by neon lamps or fractional HP motors. Mount-bracket included. Flexible leads. Cap. .5-.5 mfd. Size 1" x 2⅛". **Aerovox Type IN-23 Filter**— Net Each..... **63c**

Fig. B. TYPE IN-27 INTERFERENCE FILTER—Inexpensive noise filter. Used between set and outlet when interference is slight. Also for appliances causing low-intensity interference. Keeps noises out of house wiring. Size 1⅜" x 1½". **Aerovox Type IN-27 Filter**—Net Each..... **90c**

Fig. C. TYPE IN-28 INTERFERENCE FILTER—For cases where ground is considerable distance from point of application. Most efficient when mounted directly to source of interference by bracket included. Size 1⅜" x 2". **Aerovox Type IN-28 Filter**—Net Each..... **$1.20**

Fig. D. TYPE IN-29 INTERFERENCE FILTER—Provides additional filtering over IN-27 and IN-28. Especially effective for various local sources of interferences of strong intensity. Used between source of interference and line. Size 1⅜" x 3". **Aerovox Type IN-29 Filter**—Net Each..... **$1.05**

Fig. E. TYPE IN-30 INTERFERENCE FILTER—Similar to IN-29 but with additional inductance. Handles more severe interference. Used between set and outlet, or between noisy appliance and outlet. Size 1⅜" x 3". **Aerovox Type IN-30 Filter**—Net Each..... **$1.50**

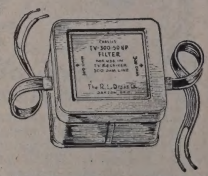
Fig. F. TYPE IN-31 INTERFERENCE FILTER—Used between line cord and outlet, either at set or appliance. More inductance than IN-30. Mounting bracket included. Size 1⅜" x 3". **Aerovox Type IN-31 Filter**—Net Each..... **$1.80**

Fig. G. TYPE IN-42 INTERFERENCE FILTER—For use in more serious cases of interference from power lines and appliances. Has inductance plus capacitance for thorough filtering. Plugs into outlet, radio set or interference source, or interference source plugs into filter. Mounting bracket included. Size 2½" x 3¾". Rated at 6 amps. for 110-120 v. AC. **Aerovox Type IN-42 Filter**—Net Each..... **$4.50**

TYPE ANL-37—INTERFERENCE SELECTOR—(Not Illus.). Plugs between interference source and outlet. Selector is adjusted until noise is eliminated or minimized. Dial indicates type filter to use. Sturdy metal cabinet with compartment containing test leads, plugs and clips. Size 5½" x 5½" x 8". **Aerovox Type ANL-37 Selector**—Net Each..... **$17.50**

R. L. DRAKE TVI FILTERS

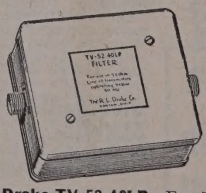
HI-PASS TYPE FOR RECEIVERS



Easily installed in the antenna lead-in at the input to the booster or TV receiver. Designs to attenuate all signals from zero to 50 megacycles entering the TV receiver through the antenna and lead-in, thereby protecting the video amplifer and I.F. channel. Although no low frequency interference may exist at the time of installing the TV receiver, the inclusion of a high pass filter in the installation will serve as insurance against future interference.

Drake No. TV-300-50HP—For use with 300-ohm Twin Lead.—Net Each..... **$2.97**

LOW PASS FILTERS



Model TV-52-40LP—For 52-ohm Coax transmission lines and in Coax links between antenna coupler and transmitter; 30 mc or lower, attenuates all antenna and feed systems harmonic radiation above 40 mc. For transmitters up to 1 kw and operating in the low frequency bands, 10 to 160 meters. Will not reduce signal strength at fundamental frequency, and eliminates use of stubs and traps. It is excellent insurance against interference to high frequency radio services, such as police, taxicabs, aircraft. **$12.95**

Drake TV-52-40LP—For 52 ohm coax. Net Each..... **$12.95**

Drake TV-300-LP—For 300 ohm Twin Lead. Net Each

MEISSNER WAVE-TRAPPERS

You can now attenuate interfering signals on fundamental or harmonic frequencies with these highly efficient tunable wave-trappers. If interference exists on more than one frequency you can connect several wave-trappers in series. These wave-trappers are highly efficient with any balanced or unbalanced line 50 to 400 ohms impedance. Available in 5 models to cover the following frequency bands: 6-13mc., 13-27mc., 27-54mc., 54-108 mc, and 108-216mc. Please state frequency range wanted. Any Model, Net Each..... **$3.60**

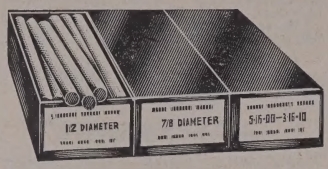
Insulators, Insulating Materials

JULIUS BLUM POLYSTYRENE MATERIAL

POLYSTYRENE SHEET

J. Blum No.	Thickness	Net Each 12" x 12"	Net Each 12" x 24"
JB-125	1/16"	$3.50	.....
JB-126	3/32"	3.75	.....
JB-127	1/8"	4.25	.....
JB-128	3/16"	5.00	.....
JB-129	1/4"	5.75	.....
JB-245	1/16"	.....	$ 6.85
JB-246	3/32"	.....	7.25
JB-247	1/8"	.....	8.35
JB-248	3/16"	.....	9.90
JB-249	1/4"	.....	11.35

J. Blum No.	Thickness	Net Each 20" x 20"	Net Each 24" x 24"
JB-300	1/8"	$ 9.90	.....
JB-301	1/16"	.....	$11.15
JB-302	3/32"	.....	11.85
JB-303	1/8"	.....	13.60
JB-304	3/16"	.....	16.25
JB-305	1/4"	.....	18.60
JB-306	5/16"	16.85	.....
JB-308	3/8"	18.75	.....
JB-309	3/8"	.....	27.65
JB-310	1/2"	25.00	.....
JB-311	1/2"	.....	36.10
JB-312	5/8"	40.00	.....
JB-313	3/4"	47.75	.....
JB-314	1"	64.75	.....



SATIN FINISH TUBING

J. Blum No.	Outside Diameter	Net Each 12" Lgth.	Net Each 48" Lgth.
JB-201	1/4"	$0.10	$0.40
JB-202	5/16"	.14	.56
JB-203	3/8"	.18	.72
JB-205	1/2"	.26	1.04
JB-206	5/8"	.32	1.28
JB-207	3/4"	.40	1.60
JB-208	1"	.56	2.24
JB-220	1 1/2"	1.50	6.00
JB-222	2"	2.20	8.80

TRANSPARENT POLYSTYRENE ROD

J. Blum No.	Diameter, Inches	Net Each 12" Lgth.	Net Each 48" Lgth.
JB-100	1/8	$0.03	$ 0.12
JB-101	3/16	.07	.28
JB-102	1/4	.12	.48
JB-103	5/16	.18	.72
JB-104	3/8	.26	1.04
JB-105	7/16	.36	1.44
JB-106	1/2	.48	1.92
JB-107	5/8	.72	2.88
JB-108	3/4	1.00	4.00
JB-109	7/8	1.42	5.68
JB-110	1	1.90	7.60
JB-111	1 1/8	2.50	10.00
JB-112	1 1/4	3.00	12.00
JB-113	1 3/8	3.60	14.40
JB-114	1 1/2	4.30	17.20
JB-116	1 3/4	6.00	24.00
JB-118	2	7.50	30.00

WE CARRY A COMPLETE STOCK OF INSULATORS AND INSULATING MATERIALS. DO NOT HESITATE TO ASK FOR ANY ITEM THAT SPACE REQUIREMENTS HAVE NOT PERMITTED US TO LIST IN THIS BOOK.

E. F. JOHNSON INSULATORS AND SUPPLIES

STAND-OFF INSULATORS

The stand-off insulators feature heavy, breakage-resistant bases. and adequate glaze grooves around mounting screw hole. **Nos. 135-65, 135-66, 135-67, 135-68** have unbreakable etched aluminum bases. Those models which have numbers ending in the suffix "J" are Jack-Type insulators.

Johnson No.	Body Hgt.	Net Each
135-20	1 5/16"	15c
135-20-2	1 5/16"	20c
135-22	1"	13c
135-22-2	1"	16c
135-24	5/8"	10c
135-60	4 1/2"	68c
135-62	2 3/4"	36c
135-65	1 3/8"	21c
135-65-2	1 3/8"	29c
135-66	2 3/4"	50c
135-66-2	2 3/4"	72c
135-67	4 1/2"	72c
135-67-2	4 1/2"	94c
135-68	2"	34c
135-68-2	2"	42c

LEAD-IN BUSHINGS

Very strong. Long leakage path. Nos. 135-53, 135-54 single porcelain units. 135-50, 135-55 steatite with special interlocking feature which permits mounting on thin panels without extra spacers.

John. No.	Top Hgt.	Dia.	Pan. Hole	Net Ea.
135-50	1/2"	3/4"	1/2"	24c
135-51	13/16"	1 1/4"	7/8"	40c
135-52	1 1/8"	1 3/4"	1 1/4"	59c
135-53	1 3/4"	2 1/2"	1 7/8"	26c
135-54	4"	3 1/2"	2 3/4"	62c
135-55	1/4"	3/4"	1/2"	23c

FEED-THRU BOWL ASSEMBLIES

Bowls, electrical glass, 6 15/16" maximum diameter, 4 3/8" high. Steel mounting flange 7 3/4" diameter. Stud threaded 1/2"-13. Cork gaskets and spun aluminum corona shields included in fittings. 135-15-1 consists of single bowl with fittings, 10 1/4" stud, 135-15-3 two bowls and fittings with 16" stud for walls up to 4". 135-15-7 two bowls and fittings with 24" stud for walls up to 12". Can also be furnished with special hollow studs.

Johnson No.	Description	Net Each
135-15-1	One bowl and fittings.....	$12.30
135-15-3	Two bowls and fittings.....	21.50
135-15-7	Two bowls and fittings.....	22.00

THRU-PANEL INSULATORS

Flat mounting surfaces with cushion washers. Grooved surfaces to increase leakage path. White porcelain.

Johnson No.	Top Hgt.	Panel Hole	Net Each
135-40	1 1/4"	1/2"	$0.25
135-40-2	1 1/4"	1/2"	.33
135-42	7/8"	7/16"	.24
135-42-2	7/8"	7/16"	.32
135-44	5/8"	5/16"	.18
135-45	1 3/8"	1/2"	.33
135-45-2	1 3/8"	1/2"	.41
135-46	2 3/4"	3/4"	.84
135-46-2	2 3/4"	3/4"	1.06
135-47	4 1/2"	1"	1.24
135-47-2	4 1/2"	1"	1.46
135-48	2"	5/8"	.48
135-48-2	2"	5/8"	.60

ALUMINUM MOUNTING FLANGES

Stamped aluminum for lead-in bushings **No. 135-53** and **135-54.**

Johnson No.	For Bushing	Net Each
135-90	135-53	25c
135-91	135-54	55c

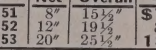
COMMERCIAL ANTENNA INSULATORS

Wet process porcelain 1 1/2" in diameter. End fittings are of non-corrosive aluminum alloy. Long leakage paths, low capacity and freedom from moisture absorption results in exceptional efficiency. Breaking strength 5,000 lbs.

Johnson No.	Length Net	Length Overall	Net Each
136-151	8"	15 1/2"	$7.70
136-152	12"	19 1/2"	8.25
136-153	20"	25 1/2"	13.25

Johnson No. 136-32—Airplane compression type strain insulator of porcelain. 2" long Net Each..... **10c**

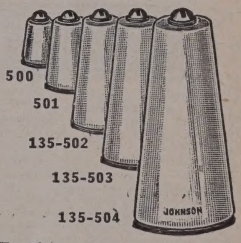
ANTENNA INSULATORS



Made of genuine wet process porcelain, with smooth white glazing. Long leakage path, low capacity and freedom from moisture absorption result in exceptional efficiency. **No. 136-104** is a dry process, 4" antenna insulator, 5/8" square. Others 1" round.

Johnson No.	Break Strength	Lgth.	Net Each
136-104	400 lbs.	4"	15c
136-107	800 lbs.	7"	75c
136-112	800 lbs.	12"	85c

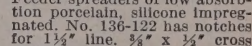
CONE INSULATORS



For hi-frequency insulation. Low moisture absorption. Threads tapped directly into ceramic. Complete with machine screws, washers.

John. No.	Height	Net
135-500	5/8"	20c
135-501	1"	24c
135-502	1 1/2"	43c
135-503	2"	49c
135-504	3"	85c

FEEDER INSULATORS



Feeder spreaders of low absorbtion porcelain, silicone impregnated. No. 136-122 has notches for 1 1/2" line. 5/8" x 1/2" cross section.

No. 136-122—Length 2". Net Each.... **12c**

No. 136-124—Length 4". Net Each.... **17c**

No. 136-126—Length 6". Net Each.... **22c**

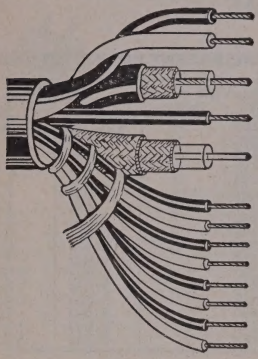
THREADED BRASS ROD

Intended primarily for use with lead-in bushings 135-53 and 135-54. Accurately cut threads, heavy nickel plating, complete with 4 washers and 4 nuts, 1/4" in diameter, 1/4-20 thread.

Johnson No.	Length	Net Each
115-240	8"	40c
115-241	10"	50c
115-242	15"	70c

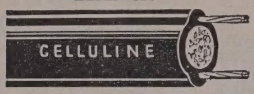
Belden Wire and Cable

8282 TV EYE CABLE



Engineered especially to meet the requirements of the RCA TV Eye Camera. High efficiency, flexible, mechanically strong. Heavy, synthetic sheath. Bright, solid color coding of conductor insulation identifies lead. One RG-58A/U, one RG-59/U, one twisted pair AWG #18 filament leads, nine #22 AWG conductors, color-coded conductors cabled. .040″ tubed gray vinyl plastic jacket; .470″ nominal diameter. **$12.00**
50-ft. Spool. Net Each..... **$ 24.00**
100′ Spool. Net..... **120.00**
500′ Reel.....

8275 UHF VHF LEAD-IN



A stable and efficient cable. Water-, sun-, wind-, abrasion-resistant. No end seal required. Uses newly developed cellular plastic core in which each cell is filled with an inert gas. Can be fixed in stand-offs without crushing. Thick outer polyethylene wall protects cable from abrasion and sun damage. Lowest loss at UHF and VHF frequencies; no internal moisture; no kinking when used with rotors; uses Belden Weldohm conductors, spacing of which is constant even when transposed. No stripping problem. 7x28 stranded Weldohm annealed copper-coated steel wire; brown polyethylene plastic jacket; .300″ diameter round; .356″ over conductor insulation. Packed in display merchandiser. **$4.50**
100′ coil, Net.....
In Crate Reel: 500′ Net **$22.50.** 1000′ Net..... **$45.00**

AERIAL WIRE

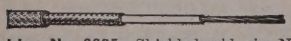
STRANDED BARE COPPER

Length, Feet	Type 8000-7x22 Net Per Roll	Type 8002-7x24 Net Per Roll
50	$0.69	$0.50
75	1.01	.68
100	1.28	.87
1,000	12.00	7.88

SOLID ENAMELED COPPER

Length Feet	Type 8008 No. 12 Net Per Roll	Type 8009 No. 14 Net Per Roll
100	$1.83	$1.28
200	3.53	.....
500	8.48	5.70

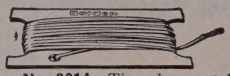
SHIELDED WIRE



Belden No. 8885—Shielded grid wire No. 20, tinned, flexible copper stranded. Rubber insulation, acetate yarn braid, fungus-resistant lacquer coating, tinned copper braid. **100 ft. $2.63; 500 ft. $12.38; 25 ft. 86c; 15 ft.** **48c**

Belden No. 8431—Shielded tinned No. 24 copper stranded flexible wire. Rubber insulation; tinned copper braid shield. Brown cotton braid over all. Extra fine wire for phonograph installations. **100 ft spool Net $2.85; 500 ft. $12.75; 25 ft. 83c; 15 ft. 57c; 10 ft. Net** **45c**

INDOOR AERIAL WIRE



Belden No. 8014—Tinned copper, flexible stranding; chrome vinyl plastic insulation. **25 ft. cards, 24c Net.**
500 Ft. Spool. Net **$2.48**

CELLULOSE ACETATE HOOK-UP AND LEAD WIRE

Tinned copper, heavy cellulose acetate yarn wrap; cellulose acetate yarn braid; fungus-resistant lacquer coating.

AVAILABLE COLORS

8941—Black, Blue, Brown, Green, Orange, Red, White, Yellow. **8945**—Black, Blue, Green, Red, White, Yellow. **8943**—Black, Blue, Brown, Green, Orange, Red, White, Yellow. **8947**—Black, Blue, Green, Red, White, Yellow. **8942**—Black, Green, Red. **8938**—Black, Red.

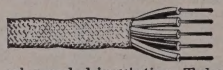
Belden No.	Type	Net Price Per 25′*	100′†	1000′#
8941	20 Solid	$0.39	$1.28	$10.20
8945	18 Solid	.45	1.55	12.75
8943	20 Stranded	.41	1.38	11.03
8947	18 Stranded	.47	1.61	13.50
8942	16 Stranded	.....	1.92	16.50
8938	14 Stranded	.....	2.40	10.88

*Carton. †Spool. #1000′ spool except 8938, 500′ spool.

ANTENNA ROTOR CONTROL CABLES

Each conductor has an .010″ wall of color coded vinyl plastic. Overall is a .015″ tubed gray plastic jacket.
Belden No. 8484—4 conductor No. 20 tinned copper flexible 7 x 28 stranding; black, green, red, white. O. D. .170″. **500 ft. Net $14.25. 1000 ft. Net $27.00. 100 Ft. Net.....** **$3.10**
Belden No. 8485—5 conductor No. 20 tinned copper flexible 7 x 28 stranding; black, green, red, white, brown, O. D. .180″. **500 ft. Net $18.75. 1000 ft. Net $36.00. 100 Ft. Net.....** **$3.90**
Belden No. 8488—8 conductor No. 22 tinned copper flexible 7 x 30 stranding; black, green, red, white, brown, blue, orange, yellow. O. D. .195″. **500 ft. Net $21.75. 1000 ft. Net $42.00. 100 Ft. Net.....** **$4.50**

WEATHER-RESISTANT PLASTIC JACKET CABLE



Vinyl, color coded insulation. Tubed grey plastic jacket.

Bel. No.	Conductors	Net Price For 15′	25′	100′	500′
8443	3 No. 22	.....	$0.75	$2.40	$10.50
8444	4 No. 22	.....	.90	2.85	12.75
8445	5 No. 22	.....	.98	3.45	15.75
8446	4, 22; 2, 18	$0.90	.....	5.25	24.75
8447	5, 22; 2, 18	.98	.....	5.70	27.00
8448	6, 22; 2, 18	1.05	.....	6.15	29.25
8449	7, 22; 2, 18	1.15	.....	6.75	32.25

MULTIPLE CONDUCTOR CABLES

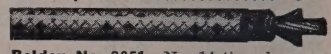
Tinned copper, flexible stranding; cotton wrap; rubber insulation, color coded; conductors cabled; rayon braid; tinned copper braid shield; cotton wrap; black rubber jacket.

Bel. No.	Cond.	Net Price For 15′	50′	100′	250′	500′
8423	3	$1.45	$4.20	$8.25	$20.25	$39.00
8424	4	1.65	5.05	9.75	23.63	.....
8425	5	1.90	5.80	11.25	27.38	.....
8426	6	2.20	7.05	13.80	33.75	.....
8427	7	2.35	7.60	15.00	36.75	.....

61-55A

AUTO LEAD-IN, IGNITION CABLE

Belden No. 8667—No. 16, tinned copper, flexible stranded; rubber insulation; cotton braid; lacquer coated. **100 ft. spool. Net** **$6.75**



Belden No. 8651—No. 14 tinned copper, flexible stranded cellophane wrapped. Rubber insulation, green cotton braid, two white tracers. Lacquer coated. **100 ft. spool. Net** **$3.60**

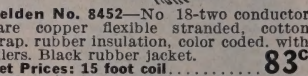
Belden No. 8652—No. 16, tinned copper, flexible stranded cellophane wrapped. Rubber insulation, black cotton braid, one white tracer. Lacquer coated. **100 ft white tracer. Lacquer coated. 100 ft. spool. Net** **$2.85**

JUKE BOX CABLES

Belden No. 8782 Speaker Cable—Two parallel 7x32 stranded copper conductors, one bare, one tinned. AWG 24. Gray vinyl insul. .058″ x .115″ nom. dia. Spooled. **1000 ft. Net...$9.00; 500 ft. Net...$4.78**

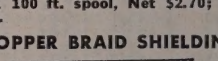
Belden No. 8783 Control Cable—3 conductor, 2-No. 16 AWG conductors, 26 strands, 30 AWG tinned copper wire; .020″ wall vinyl plastic green and orange and 1-No. 20 AWG conductor 10 strands 30 AWG tinned copper wire; .020″ wall vinyl plastic blue; overall tubed plastic .020″ jacket chrome vinyl plastic. O. D. .240″. **500 ft. spool. Net** **$23.25**

RUBBER JACKETED CABLE



Belden No. 8452—No 18-two conductor bare copper flexible stranded, cotton wrap, rubber insulation, color coded, with fillers. Black rubber jacket. **Net Prices: 15 foot coil** **83c**
25 ft. $1.35; 50 ft. coil $2.40; 100 ft. spool $4.35; 500 ft. $18.75.
Belden No. 8454—Four conductor cable. **Net Prices: 15 ft. coil** **$1.15**
50 ft. $3.40; 100 ft. $6.40; 500 ft. $30.00.
Belden No. 8454—Four conductor cable. **Net Prices: 15 ft. $1.15; 50 ft. $3.40; 100 ft. $6.40; 500 ft. $30.00.**
Belden No. 8455—Five conductor cable. 2 No. 18 and 3 No. 22. **Net Prices: 15 ft. $1.28; 50 ft. $3.55; 100 ft. $6.75; 500 ft. $33.00.**

POSJ LAMP CORD



Belden No. 8462—No. 18 bare copper flexible stranded parallel, rubber insulated, brown. **100 ft. spool, Net $2.70; 250 ft. $12.00.**

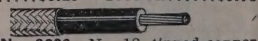
COPPER BRAID SHIELDING

Flexible tinned-copper braid in form of tubing for shielding and bonding.

Belden No.	I.D. In.	10 Ft.	50 Ft.	250 Ft.
8660	1/8	$0.30	$1.43	$ 5.20
8668	1/4	.48	1.80	7.35
8661	3/8	.54	2.20	8.70
8669	1/2	.99	4.50	21.00
8662	15/16	1.35	6.40	30.00

LEAD IN WIRE

Belden No. 8200—No. 18, tinned copper flexible stranded; rubber insulation. **100 ft. coil** **$1.28**
500 ft.....$5.10 1000 ft.....$9.75

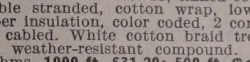


Belden No. 8206—No. 18, tinned copper flexible stranded; rubber insulation; tinned copper braid shield. **57c**
15 feet. Net.....
50′ Net....**$1.68** 100′ Net....**$3.00**

Belden Wire and Cable

TRANSMISSION LINE CABLE

Belden No. 8204—No. 18, tinned copper, flexible stranded, cotton wrap, low-loss rubber insulation, color coded, 2 conductors cabled. White cotton braid treated with weather-resistant compound. Imp. 72 ohms. **1000 ft. $31.20; 500 ft. $15.60; 100 ft. $3.45; 25 ft. Net... $1.08**



Belden No. 8209—No. 18, tinned copper, flexible stranded, cotton wrap, low-loss rubber insulation, color coded. Two conductors cabled, paper wrap, tinned copper braid shield, white cotton braid treated with weather-resistant compound. For long runs in extension speaker installations. **1000 ft. spool $54.00; 500 ft.; Net $27.00 100 ft. Net $5.70; 50 ft. $3.00. $1.08 15 ft. Coil. Net.....**

Belden No. 8799—Two No. 18 solid bare copper conductors. Baked enamel film, cotton wrap, cotton braid, waxed, color coded. Conductors cabled, tinned copper braid shield over all. **$3.90 100 ft. Spool. Net..... 500 ft. Net $18.37, 1000 ft. Net $36.00**

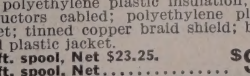
Belden No. 8205—Two number 22 tinned copper flexible stranded conductors, rubber insulation, color coded, cabled, black cotton braid, treated with weather-resistant compound. For extension speaker and control circuits. **1000 ft. Spool. Net $21.75 500 ft. Spool Net $10.88; 100 ft. Net $2.55; 25 ft. Coil Net..... 75c**

Belden No. 8222—Twin-lead parallel, 2 bare, flexible stranded copper conductors. Polyethylene insulation. Imp. 72 ohms. **500 ft. Spool Net $6.38. $1.50 100 ft. Spool Net.....**

Belden No. 8224—Same construction as 8222. For use with receiving antenna, matching transformer and experimental applications at high frequencies. Imp. 150 ohms. **500 ft. spool Net $8.25. $2.03 100 ft. Spool Net.....**

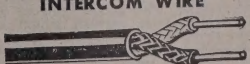
WELDOHM 300-OHM LINE

Belden No. 8230—20 gauge, 7 x 28 bare copper clad steel; flexible stranding; brown polyethylene plastic insulation. Service life exceeds plain copper construction. Impedance. 300 ohms. **1000 ft. spool. Net $20.20. 500 ft. $10.10. 100 ft. spool. Net $2.20. 75 ft. $1.80. 50 ft. Net..... $1.20**



Belden No. 8227—One bare and one tinned copper conductor, flexible stranding; polyethylene plastic insulation; two conductors cabled; polyethylene plastic jacket; tinned copper braid shield; black vinyl plastic jacket. **250 ft. spool, Net $23.25. $9.30 100 ft. spool. Net.....**

INTERCOM WIRE

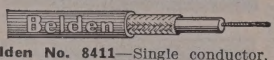


Solid tinned copper conductors No. 22 AWG. Color coded. Gray vinyl plastic jacket. Unshielded. Spooled.

Beld. No.	No. Cond.	Nom. Dia.	Net Price 100′	500′	1000′
8740	2	.140″	$ 2.10	$ 9.75	$18.00
8741	4	.185″	3.55	16.50	31.50
8742	6	.220″	4.80	23.25	45.00
8743	12	.265″	6.40	30.75	.....
8744	18	.320″	9.30	45.75	.....
8753	22	.360″	12.30	*60.00	.....
8745	30	.390″	16.50	*78.75	.....
8746	54	.510″	27.00	*132.75	.....
8747	12	.310″	8.55	41.25	.....

*Non-returnable Crate Reel.

MICROPHONE CABLE
PLASTIC MIKE CABLE



Belden No. 8411—Single conductor, 25 gauge. Flexible stranding; 3 x 33 tinned copper plus 4 x 33 tinned steel; cellulose yarn braid; polyethylene insulation; tinned copper braid shield; chrome vinyl plastic jacket. O.D. .140″. Nominal cap. per ft. 34 mmf/ft. For lapel microphones, etc. **68c**

15 ft. Carton. Net per Carton.....	
25 ft. Carton. Net per carton.....	$1.05
50 ft. Spool. Net per spool.....	1.95
100 ft. Spool. Net per spool.....	3.60
500 ft. Spool. Net per spool.....	16.50

Belden No. 8401—Same construction as above but O.D. .200″, nominal cap. per ft. 25 mmf. For crystal, ribbon and carbon microphones. **83c**

15 ft. Carton. Net per carton.....	
25 ft. Carton. Net per carton...	$ 1.28
50 ft. Carton. Net per carton...	2.40
100 ft. Spool. Net per spool....	4.50
500 ft. Spool. Net per spool....	21.00

Belden No. 8422—Two conductor, 22 gauge. Flexible stranding; 16 x 34 tinned copper; polyethylene insulation; color coded; conductors cabled with fillers; rayon braid; tinned copper braid shield; chrome vinyl plastic jacket. O.D. .231″. Nominal cap. per ft. with one conductor to shield 32 mmf. **$1.02**

15 ft. Carton. Net per carton....	
25 ft. Carton. Net per carton...	$ 1.90
50 ft. Carton. Net per carton...	3.75
100 ft. Spool. Net per spool....	7.20
500 ft. Spool. Net per spool....	34.50

RUBBER MIKE CABLE

Belden No. 8410—Single conductor, 25 gauge. Flexible stranding; 3 x 33 tinned copper plus 4 x 33 tinned steel; cellulose yarn braid; tough rubber insulation; rayon braid; tinned copper braid shield; rayon wrap; black rubber jacket. O.D. .245″. Nominal cap. per ft. 33 mmf. For crystal, ribbon and carbon mikes. **$1.28**

15 ft. Carton. Net per carton.....	
25 ft. Carton. Net per carton...	$ 2.10
50 ft. Carton. Net per carton...	3.85
100 ft. Spool. Net per spool....	7.30
500 ft. Spool. Net per spool....	35.02

Belden No. 8412—Two conductor, 20 gauge. Flexible stranding; 26 x 34 tinned copper; cotton wrap; rubber insulation; color coded; conductors cabled with fillers; rayon braid; tinned copper braid shield; cotton wrap; black rubber jacket. O.D. .268″. Nominal cap. per ft. with one conductor connected to shield 63 mmf. For carbon microphones. **$1.20**

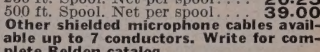
15 ft. Carton. Net per carton.....	
25 ft. Carton. Net per carton...	$ 1.90
50 ft. Carton. Net per carton...	3.75
100 ft. Spool. Net per spool....	7.50
500 ft. Spool. Net per spool....	34.50

Belden No. 8423—Three conductor. Same construction and O.D. as No. 8412. Nominal cap. per ft. with one conductor connected to shield 85 mmf/ft. **$1.45**

15 ft. Carton. Net per carton.....	
50 ft. Carton. Net per carton....	$4.20
100 ft. Spool. Net per spool.....	8.25
250 ft. Spool. Net per spool....	20.25
500 ft. Spool. Net per spool....	39.00

Other shielded microphone cables available up to 7 conductors. Write for complete Belden catalog.

BROADCAST AUDIO CABLES



Belden No. 8738—Two No. 22 solid tinned copper conductors. Baked enamel film, cotton braid, waxed, color coded. Conductors cabled, tinned copper braid shield overall. **$2.25 100 ft. spool. Net..... 500 ft. spool. Net $12.00. 1000 ft. Net $22.50.**

Belden No. 8739—Same as 8738 plus overall tubed gray vinyl plastic jacket. **100 ft. spool. Net $3.75. 500 ft. spool. Net $18.95. 1000 ft. Net $37.90.**

Belden No. 8440—Same as No. 8738 except has No. 22 AWG tinned solid copper wire parallel to twisted pair under shield. Gray tubed vinyl plastic jacket. Spooled. **100 ft.—Net $4.65; 500 ft.—Net $22.50. 1000 ft.—Net per Spool.....$43.50**

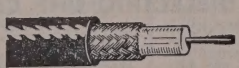
MAGNET WIRE
BELDENAMEL

Size	Turns: Per Lin. In.	Turns: Per Sq. In.	Approx. Lgth. in Feet: ¼-Lb. Sp.	Net Each	½-Lb. Sp.	Net Each
14	15.2	231	....	.....	40	54c
16	19.1	365	....	.....	62	
18	23.9	571	....	.....	100	
20	29.9	894	....	.....	160	$0.56
22	37.4	1399	....	.....	250	.57
24	46.9	2200	....	.....	400	.62
26	59.0	3481	....	.....	638	.66
28	73.8	5446	505	$0.47	1010	.72
30	92.2	8501	805	.45	1610	.80
32	114.0	12996	1270	.47	2540	.83
34	144.0	20736	2015	.51	4030	.87
36	180.0	32400	3200	.62	6400	1.11
38	225.0	50625	5070	.78	....	.....
40	290.0	84100	8050	1.14	....	.....

SINGLE COTENAMEL

Size	Turns: Per Lin. In.	Turns: Per Sq. In.	Approx. Lgth. in Feet: ¼-Lb. Sp.	Net Each	½-Lb. Sp.	Net Each
14	14.1	199	....	.....	39	$0.62
16	17.4	303	....	.....	61	.63
18	21.4	458	....	.....	97	.69
20	26.1	681	....	.....	154	.77
22	31.9	1018	....	.....	241	.83
24	38.6	1490	....	.....	376	.92
26	46.4	2153	295	$0.56	590	1.05
28	55.1	3036	458	.62	916	1.19
30	64.7	4186	710	.77	1420	1.47
32	74.6	5565	1090	.96	2180	1.79
34	86.5	7500	1606	1.22	....	.....
36	97.6	9526	2425	1.55	....	.....

RGU HIGH FREQUENCY CABLES



RG-59/U

Types listed below have black vinyl plastic jacket except, No. 8239 which is clear polyethylene.

RG-11/U

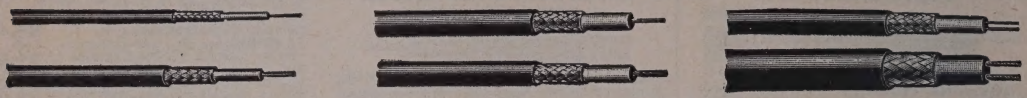
Beld. No.	RG Type	Net Prices 100 ft.	500 ft.	1000 ft.
8237	RG-8/U	$12.15	$ 59.25	$115.50
8238	RG-11/U	11.40	55.50	108.00
8239	RG-54A/U	6.90	33.75	66.00
8240	RG-58/U	4.35	21.00	40.50
8241	RG-59/U	5.85	27.75	54.00
8242	RG-9/U	26.25	129.75	258.00
8243	RG-21/U	22.50	108.75	216.00
8244	RG-29/U	4.73	23.25	45.00
8245	RG-55/U	6.45	31.50	61.50
8246	RG-9A/U	36.00	166.50	330.00
8247	RG-10/U	24.00	112.50	219.00
8248	RG-12/U	24.00	112.50	219.00
8249	RG-42/U	21.00	102.00	202.50

Beld. No.	RG Type	Net Prices 100 ft.	500 ft.	1000 ft.
8250	RG-13/U	$19.50	$ 90.75	$174.00
8252	RG-83/U	16.50	75.00	142.50
8253	RG-6/U	18.00	83.25	165.00
8254	RG-62/U	7.73	38.25	75.00
8255	RG-63/U	13.50	66.75	127.50
8256	RG-79/U	22.50	108.75	210.00
8257	RG-71/U	11.25	55.50	109.50
8258	RG-111/U	36.00	176.25	345.00
8259	RG-58A/U	5.10	24.75	46.50
8260	RG-22A/U	22.50	110.25	217.50
8264	RG-5A/U	21.00	104.25	205.50
8265	RG-7/U	13.50	66.00	124.50
8266	RG-108/U	6.75	33.00	63.00

61X-55A

RG Cables by AMPHENOL

POLYETHYLENE DIELECTRIC RG TYPE COAXIAL CABLES



Strict end-to-end uniformity of these cables is accomplished by precision plastic extrusion, accurate temperature control, constant process inspection and micrometer gauging standards. These cables are fully approved and produced to rigid military specifications. The maximum dielectric qualities of polyethylene are fully utilized. The banding radius is ten times the outside cable diameter and is maintained over a wide range of temperatures. Low moisture absorption qualities.

Type of Conductor—No suffix to figures in the "Wire Size" column denotes regular copper. CW, Copperweld; S, silvered copper; T, tinned copper; N, nichrome.

MILITARY APPROVED

Amphenol polyethylene and Teflon cables are fully approved and produced to rigid military specifications. Proper size, quality and centering of inner conductors, absence of voids in, and accuracy of outside diameter of the dielectric; proper size and quality of braided shielding; close centering of outer jacket; correct overall diameter and proper cable markings are other features which insure utmost efficiency and dependability. All cable checked and accompanied by notarized affidavit.

Amphenol Number	AN Number	Nom. Imped.	Max. Volts RMS	Wire Size	Dielectric O. D.	Cable O. D.	NET PRICES PER COIL 100-ft.**	500 ft.	1000 ft.	Other Coil Lengths Net per Coil Length
21-001	RG-5/U	52.5	3000	16	.185	.332	$ 14.28	$ 69.37	$ 134.55	.....
21-271	RG-5A/U	50	3000	16S	.181	.328	23.33	115.83	228.34	.....
21-002	RG-6/U	76	2700	21CW	.185	.332	20.00	96.66	186.67	.....
21-003	RG-7/U	97	1000	19	.250†	.370	14.94	72.30	139.80	.....
21-004	RG-8/U	52	4000	7/21	.285	.405	13.50	65.83	128.34	$ 318.72 per 2500 ft.
21-005	RG-9/U	51	4000	7/21S	.280	.420	29.17	144.17	286.67	.....
21-231	RG-9A/U	51	4000	7/21S	.280	.420	39.17	193.33	383.33	.....
21-006	RG-10/U	52	4000	7/21	.285	.405	25.36	124.50	.....	366.30 per 1500 ft.
21-007	RG-11/U	75	4000	7/26T	.285	.405	12.67	61.67	121.66	300.00 per 2500 ft.
21-008	RG-12/U	75	4000	7/26T	.285	.405	25.00	123.33	.....	365.00 per 1500 ft.
21-009	RG-13/U	74	4000	7/26T	.280	.420	21.67	105.00	203.33	.....
21-010	RG-14/U	52	5500	10	.370	.545	32.01	.....	310.80	.....
21-011	RG-15/U	76	5000	15CW	.370	.545	33.36	.....	328.80	.....
21-013	RG-17/U	52	11000	.188	.680	.870	62.86	311.66	#619.80	#1221.90 per 2000 ft.
21-014	RG-18/U	52	11000	.188	.680	.870	84.78	420.83	#815.50	#1562.16 per 2000 ft.
21-015	RG-19/U	52	14000	.250	.910	1.120	97.15	#481.20	†953.40	.....
21-016	RG-20/U	52	14000	.250	.910	1.120	131.59	#649.72	†1281.44	.....
21-017	RG-21/U	53	2700	16N	.185	.332	24.16	118.42	232.05	.....
21-038	RG-22/U	95	1000	2-7/.0152	.285	.405	16.41	79.95	155.40	.....
21-148	RG-22A/U	95	1000	2-7/.0152	.285	.420	25.00	122.50	241.67	.....
21-018	RG-29/U	53.5	1900	20	.116	.184	5.83	28.33	55.00	270.85 per 5000 ft.
21-019	RG-34/U	71	5200	7/21	.455	.625	29.04	.....	281.25	.....
21-020	RG-35/U	71	10000	9	.680	.870	86.46	428.02	.....	#1270.80 per 1500 ft.
21-021	RG-42/U	78	2700	21N	.196	.342	27.33	133.33	261.67	.....
21-022	RG-54A/U	58	3000	7/.0152	.178	.250	8.17	38.33	75.00	146.66 per 2000 ft.
21-023	RG-55/U	53.5	1900	20	116	.206	10.25	50.00	98.66	386.68 per 4000 ft.
21-039	RG-57/U	95	3000	2-7/21	.472	.625	35.72	.....	347.70	.....
21-024	RG-58/U	53.5	1900	20	.116	.195	5.83	28.33	55.33	161.49 per 3000 ft.
21-199	RG-58A/U	50	1900	19/.0068	.116	.195	6.00	29.16	55.33	164.25 per 3000 ft.
21-025	RG-59/U	73	2300	22CW	.146	.242	6.67	31.67	61.67	360.00 per 6000 ft.
21-026	RG-62/U	93	750	22CW	.146†	.242	8.05	38.17	72.15	409.50 per 6000 ft.
21-027	RG-63/U	125	1000	22CW	.285†	.405	14.83	72.91	143.33	.....
21-029	RG-71/U	93	750	22CW	.146†	.250	12.50	61.66	121.67	360.00 per 3000 ft.
21-041	RG-74/U	52	5500	10	.370	.545	47.17	.....	460.00	.....
21-070	RG-79/U	125	1000	22CW	.285†	.405	26.33	130.00	256.67	.....
21-180	RG-83/U	35	2000	10	.240	.405	18.33	89.16	175.00	.....
21-253	RG-89/U	125	1000	22CW	.285†	.632	36.16	.....	358.50	.....
21-261	RG-108/U	76	1000	2-7/28	.073ea.	.235	8.71	41.47	78.30	221.85 per 3000 ft.
21-255	RG-111/U	95	1000	2-7/.0152	.285	.420	42.50	209.16	413.33	.....
21-125	.....	71	10000	9	.680	.870	58.17	285.82	#559.80	#1096.50 per 2000 ft.
21-440	RG-114/U	185	1000	33CW	.285†	.405	17.13	83.40	162.00	.....
21-441	RG-122/U	50	1900	27/36T	.096	.160	8.22	39.00	73.80	345.00 per 5000 ft.
21-442*	RG-125/U	150	1000	26CW	.460†	.600	30.99	.....	301.20	.....
21-436	RG-130/U	95	3000	2-7/21	.472	.625	41.83	.....	410.00	.....
21-437	RG-131/U	95	3000	2-7/21	.472	.625	56.17	.....	555.00	.....
21-525	RG-133/U	95	1000	21	.285	.405	18.17	84.16	161.66	.....

*Low temperature black jacket; Signal Corps type. †Semi-solid dielectric. #Returnable reel, weight 220 lbs. Net $50.00
**Additional charge of 10% for quantities less than 100 ft.

LOW CAPACITANCE MICROPHONE CABLE

A small diameter, unusually low capacitance cable with polyethylene dielectric vinyl jacket. For use by PA servicemen, sound system manufacturers and in a complete range of related uses. .155" diameter jacket; .080" diameter dielectric with a capacitance of 35 mmf per foot.

Amphenol No. 21-146 Microphone Cable—

100-ft. coil. Net Each	$7.04
500-ft. coil. Net Each	32.02
1000-ft. coil. Net Each	59.70
5000-ft. coil. Net Each	276.00

TEFLON DIELECTRIC UHF CABLE

The new flourine dielectric, teflon, operates without difficulty at temperatures from −100° F. to +500° F., thereby extending the range of solid dielectric radio frequency cable far beyond the previous coverage. Teflon is an outstanding dielectric not only because of its efficiency at high temperatures, but also because of its extremely low loss and high voltage breakdown. Covering the Teflon are one or two silver coated or plain copper shield braids and two wrappings of Teflon tape. The jacket consists of fibreglass braids impregnated with silicone varnish which is oven baked to provide maximum moisture resistance.

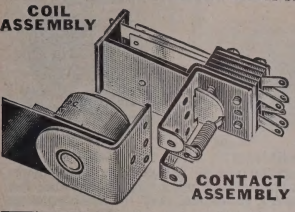
Amphenol No.	AN Number	Nom. Imp. Ohms	O. D. of Armor	Jacket Diam.	Type Jacket*	Shields 1st	Shields 2nd	O. D. of Dielectric	Inner Cond.	V.P. %	Cap. μμfd/ft.	Max. Op. Volts	Net Per Foot
21-250	RG-87A/U	50	.....	.425"	FSI	S	S	.280"	7/20S	69.5	29	3000	$ 3.41
21-378	RG-116/U	50	.475	.425"	FSI	S	S	.280"	7/20S	69.5	29	3000	3.75
21-377	RG-117/U	50	.....	.730"	FSI	C	.....	.620"	.188	69.5	29	6000	9.64
21-374	RG-118/U	50	.780	.730"	FSI	C	.....	.620"	.188	69.5	29	6000	11.42
21-398	RG-119/U	50	.....	.465"	FSI	C	C	.328"	10 bare	69.5	29	4000	4.75
21-399	RG-120/U	50	.515	.465"	FSI	C	C	.328"	10 bare	69.5	29	4000	5.00
21-443	RG-126/U	50	.....	.275"	FSI	K	.....	.180"	7/24K	69.0	29	2000	2.59
21-388	RG-143/U	50	.....	.332"	FSI	S	S	.185"	15S	69.5	29	2000	2.83
21-391	RG-144/U	72	.....	.405"	FSI	S	.....	.280"	7/25S	69.5	21	3000	3.49
21-385	RG-142/U	50	.....	.206"	FSI	S	S	.116"	19S	69.5	29	1500	2.02
21-382	RG-141/U	50	.....	.195"	FSI	S	.....	.116"	19S	69.5	29	1500	1.87
21-379	RG-140/U	73	.....	.241"	FSI	S	.....	.146"	21S	69.5	21	1700	2.23

*Fibreglass Silicone Impregnated. #S—Silver coated copper; C—Copper; K—Karma wire.

548-55A

Relays, Crystals, Headphones

GUARDIAN INTERCHANGEABLE AND SPECIAL RELAYS



Two basic parts—a coil assembly and a contact switch assembly—comprise this simple, yet versatile, relay. The coil assembly consists of the coil and field piece. The contact assembly consists of switch blades, armature, return spring and mounting bracket. Contact assemblies available in either SPDT or DPDT. Interchangeable with Series 200.

Model	Contact Switch Assemblies	Net Each
200-1	Single pole double throw 8 amps.	$1.35
200-2	Double pole double throw 8 amps.	1.83
200-3	Contact switch parts	1.35
200-4	Double pole double throw 12.5 amps.	2.13
200-5	4 pole double throw 8 amps.	3.35
200-M1	Single pole double throw	1.32
200-M2	Double pole double throw	1.62
200-M3	Contact switch parts, Midget	1.35
200-M5	4 pole double throw 8 amps.	2.82

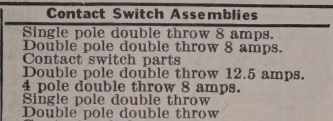
Model	A C Coils		Net Each
200-6A	6 volts A.C.	60 cycles	$1.62
200-12A	12 volts A.C.	60 cycles	1.62
200-24A	24 volts A.C.	60 cycles	1.62
200-115A	115 volts A.C.	60 cycles	2.04
200-230A	230 volts A.C.	60 cycles	2.82

Model	DC Coils	Net Each
200-6D	6 volts D.C.	$1.62
200-12D	12 volts D.C.	1.62
200-24D	24 volts D.C.	1.62
200-32D	32 volts D.C.	1.62
200-110D	110 volts D.C.	2.04
200-5000D	Plate Circuit Coil	2.13

CONTACT PARTS KIT 200-3

Assortment of contact parts to make other switch combinations. May be used with SPDT or DPDT contact assemblies to make 3PST, 4PST, 4PDT combinations, etc. Either contact assembly takes any combination up to four pole double throw. Includes complete assembly and wiring information for all possible combinations. Complete with all necessary hardware. Shipping Weight, 4 oz. Net Each..... $1.35

JAMES KNIGHTS AMATEUR CRYSTALS



IF17 Filter Circuit Crystals—Hermetically sealed for operation anywhere from Arctic to Tropics. 455 kc ±3 kc. Wire mounted and silver plated for higher Q, faster starting than air gap types. Low shunt cap'y, 1.8 mmfd; low series resistance, 4000 ohms. Spurious response, none. ±10 kc. .050" pins spaced ½". For .093" pins order IF17L; for RETMA pigtail leads order IF17W. **IF17, IF17L and IF17W**—Net Each..... $3.95

H-23 Stabilized Crystals—Round flat phenolic holders with ⅛" diameter pins spaced ¾" apart. Metal nameplate shows frequency. Waterproof assembly. All quartz plates used in this holder are pressure mounted between stainless steel electrodes and will stand maximum vibration. Can be supplied in any frequency between 1800 kc and 20 mc on special order.

H-23 Stabilized Crystals—
1800 to 3000 kc ±2 kc, 3000 to 9000 kc ±5 kc. Net Each..... $2.95

9000 to 15000 kc ±10 kc. Net Each..... $3.95

Special Crystals—Any frequency between 1800 and 20 mc., .03% tolerance. Made to your order. Net Each..... $4.80

H43 Stabilized Crystals—(Any amateur frequency between 2000 kc and 20,000 kc) Drift: Not more than 2 P.P.M. per degree cent. from −10° to +60° C. (Usually less than 1 P.P.M. per degree cent.) Holder: Water and dust-proof phenolic material. Mounting: Especially designed to eliminate drift. Top Plate: Heavily plated brass. Electrodes: Stainless steel. Dimensions: 1.4" x 1.2" x .5". Pin Spacing: ¾". Pin Diameter: ⅛".

H-43 Stabilized Crystals—
1800 to 3000 kc ±2 kc, 3000 to 9000 kc ±5 kc. Net Each..... $2.95

9000 to 15000 kc. Net Each..... $3.95

Special Crystals—Any frequency between 1800 and 20 mc, .03% tolerance. Made to your order. Net Each..... $4.80

H73 Stabilized Crystals—(Any amateur frequency between 2000 kc and 20,000 kc. Drift: Not more than 2 P.P.M. from −10° to +60° C. (Usually less than 1 P.P.M. per degree cent.) Holder: Water and dust-proof phenolic material. Mounting: Especially designed to eliminate drift. Top Plate: Heavily plated brass. Electrodes: Stainless steel. Dimensions: 1.8" x .5" x .8". Pin spacing: ½". Pin diameter: .093". Fits regular octal socket.

H-73 Stabilized Crystals—
1800 to 3000 kc ±2 kc, 3000 to 9000 kc ±5 kc. Net Each..... $2.95

9000 to 15000 kc ±10 kc. Net Each..... $3.95

Special Crystals—Any frequency between 1800 and 20 mc., .03% tolerance. Made to your order. Net Each..... $4.80

BRUSH CRYSTAL HEADPHONES AND PILLOW SPEAKER

MODEL "A-1" HEADSET (No. 205)
Similar to Fig. A. Use where high fidelity and extended frequency range are of paramount importance (60 to 10,000cps. Corrected for rising response below 200cps.) Especially suited to monitoring, etc. **Sensitivity:** approx. 1.5 dynes/cm²/volt at 1000cps. **Impedance:** over 80,000 ohms at any frequency within the audio range. Headset complete with 5-ft. cord and headband. Shipping Weight, 2 lbs.
Brush Model A-1—Net Each..... $16.05

FIG. A—MODEL "A" HEADSET (No. 200)
For general purpose applications including lab., studio and home use. BIMORPH crystal drive element insures wide ranges, response from 100 to 8000 cycles, high sensitivity. High-Z **$10.50**
Brush Model "A"—Headset, adjustable headband. Net

FIG. B—MODEL "A" SINGLE PHONE (No. 202)
Same receiver as above. Particularly adapted to individual or group hearing aid and radio applications. Light weight, good ear seal, comfortable. With 5-ft. cord and headband. Net..... **$6.75**

FIG. C—MODEL BA-202 LORGNETTE PHONE
Designed for use in group hearing aid sound systems. Telescope extension from 12" to 17". Satin black finish. Single phone, complete with 5-ft. cord and lorgnette handle. Net Each..... **$8.70**

FIG. D—MODEL BA-303 HUSHATONE
Miniature, molded plastic extension speaker for under pillow use. Disc shaped (4⅛" dia. x 1⅛" thick), causes no lump underneath pillow. Hermetically sealed, it can be dipped into disinfecting solutions not exceeding 120° F. BIMORPH crystal element. Adequate volume with only .001 watt power consumption. **Impedance:** approx. 40,000 ohms at 1000cps. Designed for use with any radio or sound system. 10-ft. cord equipped with phone tips attached by bayonet-type plug.
Brush Model BA-303—Shipping Weight, 2 lbs. Net Each, **$7.80**

AMPERITE DELAY RELAYS

Glass Enclosed—Hermetically Sealed—AC-DC or Pulsating Current. Circuits: SPST only—normally open or normally closed. Heater Wattage: 2 Watt approx. Heaters can be operated continuously. Contact Rating: 115 V-3A AC. (or 440V-1.5 A AC.); maximum voltage between contacts and heater—1500 V. Ambient Temperatures: Relays are compensated for temperatures of —55° to +70° C. Life: With 115 V-2A AC, non-inductive, at least 25,000 operations. Base Wiring: Heater—Prongs 2-3; Contacts—5-7. Net Each..... $2.40

NORMALLY OPEN CONTACTS

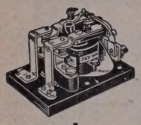
Del. Sec.	Tol. Sec.	HEATER VOLTAGES 2.5 V.	5.0 V.	6.3 V.	12 V.	26 V. (22-30)	115 V.
2	±1	2N02	5N02	**6N02**	12N02	26N02	115N02
3	±1	2N03	5N03	**6N03**	12N03	**26N03**	**115N03**
5	±2	2N05	5N05	**6N05**	12N05	**26N05**	**115N05**
10	±3	**2N010**	5N010	**6N010**	12N010	**26N010**	**115N010**
15	±3	2N015	5N015	**6N015**	12N015	**26N015**	**115N015**
20	±4	2N020	5N020	**6N020**	12N020	**26N020**	**115N020**
30	±7	**2N030**	**5N030**	**6N030**	**12N030**	**26N030**	**115N030**
45	±9	2N045	5N045	**6N045**	12N045	**26N045**	**115N045**
60	±10	**2N060**	**5N060**	**6N060**	12N060	**26N060**	**115N060**
75	±12	2N075	5N075	**6N075**	12N075	**26N075**	**115N075**
90	±12	**2N090**	5N090	**6N090**	12N090	**26N090**	**115N090**
120	±20	2N0120	5N0120	**6N0120**	12N0120	**26N0120**	**115N0120**

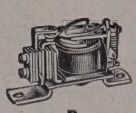
NORMALLY CLOSED CONTACTS

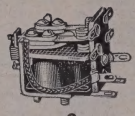
2	±1	2C2	5C2	**6C2**	12C2	26C2	115C2
3	±1	2C3	5C3	**6C3**	12C3	**26C3**	**115C3**
5	±2	2C5	5C5	**6C5**	12C5	**26C5**	**115C5**
10	±3	2C10	5C10	**6C10**	12C10	**26C10**	**115C10**
15	±3	2C15	5C15	**6C15**	12C15	**26C15**	**115C15**
20	±4	2C20	5C20	**6C20**	12C20	**26C20**	**115C20**
30	±7	**2C30**	5C30	**6C30**	**12C30**	**26C30**	**115C30**
45	±9	2C45	5C45	**6C45**	12C45	**26C45**	**115C45**
60	±10	**2C60**	5C60	**6C60**	12C60	**26C60**	**115C60**
75	±12	2C75	5C75	**6C75**	12C75	**26C75**	**115C75**
90	±12	2C90	5C90	**6C90**	12C90	**26C90**	**115C90**
120	±20	2C120	5C120	**6C120**	12C120	**26C120**	**115C120**

Bold face type indicates most popular types.

Relays by Potter & Brumfield

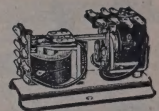

A


B


C

D*

E


F

Potter & Brumfield, the most popular line of relays used throughout the world, is presented here in convenient tabular form for your selection. Backed by more than 20 years of manufacturing experience, these relays have obtained universal acceptance for their reliability and outstanding performance. In addition to the wide selection listed, there are thousands of other types available for special applications. Contact our industrial staff for assistance on your application. *In clear polystyrene.

ALL-PURPOSE RELAYS

P & B No.	Fig. †	Contact Arrangement	Contact Amps.	Net Prices 6 v., AC	6 v., DC*	24 v., AC	24v., DC*	115v., AC	230 v., AC
KR1A	C	SPST, NO	5#	$2.20	.....	.....	.....	$2.20	.....
KR2A	C	SPST	5#	.....	.....	.....	.....	2.15	.....
KR3A	C	SPST NO DB	5#	.....	.....	.....	.....	2.65	.....
KR5A	C	SPDT	5#	2.20	$2.10	$2.20	$2.10	2.20	.....
KR7A	C	DPST NO	5#	2.65	.....	.....	.....	2.65	.....
KR11A	C	DPDT	5#	2.75	2.65	2.75	2.65	2.75	.....
KR14A	C	3PDT	5#	3.50	3.40	3.50	3.40	3.50	.....
KRP5A	D	SPDT	5	5.50	5.40	5.50	5.40	5.50	.....
KRP11A	D	DPDT	5	6.05	5.95	6.05	5.95	6.05	.....
MR1A	B	SPST NO	8	2.25	2.25	2.25	2.25	2.25	$2.70
MR3A	B	SPST DB	10	2.90	2.90	2.90	2.90	2.90	3.35
MR5A	B	SPDT	8	2.40	2.40	2.40	2.40	2.40	2.85
MR7A	B	DPST NO	8	3.20	3.20	3.20	3.20	3.20	3.65
MR11A	B	DPDT	8	3.65	3.65	3.65	3.65	3.65	4.10
MR14A	B	3PDT	8	4.40	4.40	4.40	4.40	4.40	4.85
PR1A	A	SPST NO	15	3.50	.....	3.50	.....	3.50	4.15**
PR3A	A	SPST NO DB	20	3.60	.....	3.60	.....	3.60	4.25**
PR5A	A	SPDT	15	3.80	.....	3.80	.....	3.80	4.45**
PR7A	A	DPST NO	15	4.25	.....	4.25	.....	4.25	4.90**
PR11A	A	DPDT	15	5.70	.....	5.70	.....	5.70	6.35**

#Series KR rated 5 amps. at 115 volts, AC. ***For DC Models** change suffix "A" to "D" in P & B No.
**These models available with DC coils also. Change "A" to "D" in P & B No. No price change.

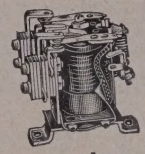
SPECIAL PURPOSE RELAYS FOR PHOTO-FLASH 6 VOLT COILS (FIG. E)

2500 volt capacity discharge. Models **FR1A, FR5A, FR11A** are 50-60 cycle coils; others DC.

P & B No.	Contact	Poles	Net Each
FR1A	ST, NO	1	$3.30
FR5A	DT	1	3.60
FR11A	DT	2	4.70
FR1D	ST, NO	1	3.30
FR5D	DT	1	3.60
FR11D	DT	2	4.70

All models have solder lug terminals.

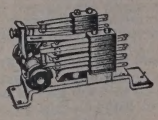
H


J

KL

M

M**


N

SPECIAL PURPOSE LATCHING RELAYS—FIG. F†

P & B Model	Coil V. x CPS	Contact Amps.	No. Poles	Contact Arr.	Type Term.	4 P.D.T. Net
LK17A	6-12-24-110 x60	5	Up to 4	DT	Solder lug	$6.90
LK17D	6-12-24-110 DC	5	Up to 4	DT	Solder lug	6.75

Also available hermetically sealed.

SPECIAL PURPOSE SUPER MIDGET RELAYS—FIG. H**†

SM5DS	6 x DC					$4.35
SM5DS	24 x DC					4.35
SM5LS	5000 ohms	.250	1	DT	Plug In	4.85
SM5LS	8000 ohms					5.15
SM5LS	10,000ohms					5.55

**Hermetically sealed in steel.

SPECIAL PURPOSE PLATE CIRCUIT RELAYS

Solder Lug Terminals.

P & B Model	Fig.†	Contact Amps.	Coil Ohms x Ma.	No. Poles	Contact Arr.	Net Each
LM1			2.5M x 2.4		ST, NO	$2.60
LM1			5M x 1.7		ST, NO	2.75
LM5	J	4	2.5M x 2.4	1	DT	2.80
LM5			5M x 1.7		DT	2.95
LM5			10M x 1.2		DT	3.30
LM7			2.5M x 5.3		ST, NO	3.75
LM7			5M x 3.7		ST, NO	3.90
LM11	J	4	2.5M x 5.3	2	DT	4.20
LM11			5M x 3.7		DT	4.35
LM11			10M x 2.7		DT	4.70
LS5	K	3	2.5M x 6.0	1	DT	2.25
LS5			5M x 4.3		DT	2.35

†DIMENSIONS

Fig. A—2⅝"x2 9/16"x2¼"
Fig. B—2¾"x2½"x1⅞"
Fig. C—1 5/16"x1 11/16"x1 15/16"
Fig. D—1⅜"x1⅜"x2"
Fig. E—2¾"x2⅛"x1⅞"
Fig. F—2 15/16"x1¾"x1 13/16"
Fig. H—¾" Dia. x 1⅝"
Fig. J—2¼"x2⅛"x2⅜"
Fig. K—2⅝"x1¼"x1 5/16"
Fig. L—11/16"x1½"x1⅜"
Fig. M—1"x1 11/16"x2⅝"
Fig. N—4"x2⅛"x2⅛"

The listings on this page are only a few of the more popular Potter & Brumfield relays. Write for a complete Potter & Brumfield catalog.

SPECIAL PURPOSE MIDGET TELEPHONE TYPE RELAYS

4PDT Contacts

P & B Model	Fig.	Contact Amps	Coil	Type Term.	Net Each
MH-17A	L	5	6V- 50-60 Cy.	Solder Term.	$ 5.15
MH-17A	L	5	24V- 50-60 Cy.		5.30
MH-17A	L	5	115V- 50-60 Cy.		5.40
MH-17D	L	5	6V DC		4.85
MH-17D	L	5	24V DC		4.95
MH-17AM	M**	5	6V- 50-60 Cy.	KOVAR Solder Term.	12.45
MH-17AM	M	5	24V- 50-60 Cy.		12.55
MH-17AM	M	5	115V- 50-60 Cy.		12.65
MH-17DM	M	5	6V DC		12.10
MH-17DM	M	5	24V DC		12.20

**Hermetically sealed in steel.

RATCHET OR IMPULSE RELAYS—FIG. N

Contact arrangements up to 4PDT

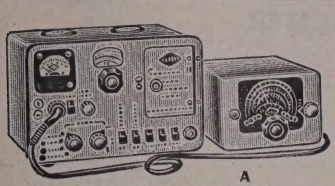
P & B Model	Coil Volts x CPS	Contact Amps	No. Poles	Type Terminal	Net Each
AP-11A	6-12-24-115 x 60	5	2PDT	Solder Term.	$7.50
AP-17A	6-12-24-115 x 60	5	4PDT		9.00
AP-11D	6-12-24-110v DC	5	2PDT		7.50
AP-17D	6-12-24-110v DC	5	4PDT		9.00

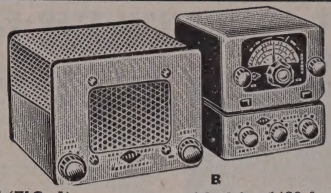
SU SERIES MULTIPLE LEAF RELAYS (FIG. M)

Model SU is a series of leaf type relays permitting a wide range of contact combinations for multiple circuit switching of power loads. The long coil provides ample power for fast positive switching and high contact pressure. Heavy, tin-coated phosphor bronze springs have sufficient overtravel movement to give good contact wipe. SU coils are random wound. Solder lugs soldered to the periphery of the coil. Average power required on DC models is 2.5 watts. For all AC models, the average is 12 volt-amperes. 1/16" fine silver contacts, dome-shaped, rated at 5 amps., 115 volts, AC, non-inductive load. **Size:** 2 3/16" x 1 7/16" x 2 7/16".

P & B No.	Coil	Contact Arrangement	Net Each
SU11D	6 volts, DC	DPDT	$2.95
SU17D	6 volts, DC	4PDT	4.00
SU11D	24 volts, DC	DPDT	2.95
SU17D	24 volts, DC	4PDT	4.00
SU11A	115 volts, 60 cycles	DPDT	2.95
SU17A	115 volts, 60 cycles	4PDT	4.00

GONSET Mobile Equipment


A


B

C

D

THE GONSET "COMMANDER" (FIG. A)
An extremely compact, highly efficient transmitter for fixed or mobile service within the frequency range of 1.7 to 54 mc, with a power output of 35 to 50 watts. Arranged with switch to change from self-contained crystal to external VFO: the latter covering amateur 10-11-15-20-40-75 meter bands. Driver stages are band-switched. Two hi-Q plug-in coils furnished cover 10-11-15-20-40-75 and 80 meter bands. Higher and lower coils available. Output permits Marconi against ground, 52 ohm unbalanced lines, ribbon or open-wire balanced lines. **Power Requirements:** 300-450 volts DC at 200-225ma. (phone) and 6.3 volts AC or DC at 3.15 amps. **Size:** 5⅜" high, 8½" wide, 7⅛" deep. Suitable for under-dash mounting.
"Commander" (Model 3016)—With tubes. Net Each **$124.50**

VFO ADAPTER MODEL 3020—Illustrated above with Commander. Arranged with cable and plug, permitting VFO to be mounted on steering column. 5¼" x 3½" x 5¼". Net. **$29.95**

"SUPER-CEIVER"
Provides mobile receiver performance comparable to that of a high quality fixed-station communication receiver. Used in conjunction with any good quality amateur converter such as the Gonset "Super-Six" (as illustrated), the result is a complete mobile receiver. Self-contained vibrator power supply; crystal controlled, utilizing eight tuned circuits; highly stable BFO with adjustable pitch control; separate RF and AF gain controls; adjustable squelch; effective noise clipper. Internal speaker, provision for external speaker. Pertinent controls in a small control head which mounts near the converter for "finger-tip" operation. Cables and connectors furnished, ready to plug in. Crystal furnished for 1430 ks (Super-Six) input, but may be factory exchanged for other inputs at no charge. 6⅞" wide, 6¾" deep, 5¼" high. (Price does not include Converter).
Gonset "Super-Ceiver" Model 3041—Net Each..... **$119.50**

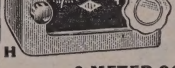
THE GONSET "COMMUNICATOR"
Available in three models to meet requirements of amateur, C-D, C.A.P., Commercial and Industrial services. Each model is a complete station . . . superhet receiver with cascode RF, crystal controlled transmitter, self-contained power supply for both 6 volts DC and 110 volts AC. **Frequency Range:** 144-148.3 mc. 2E26 final delivers 5 to 7 watts carrier. Communicator II is similar, except includes adjustable squelch, phone jack with speaker muting and dial light switch. VFO unit, available separately, plugs into crystal socket and is actuated by main T/R switch. Provision is made for using the modulator as a PA system, mobile or fixed. 19" whip antenna included for local operation. Provision made for ready connection of 52 ohm, or Gonset open-wire line where external antennas are to be used. **Size:** 8⅞" x 10⅞" x 10⅜". Light weight.
Communicator II (Model 3025)—Net Each..... **$229.50**

VFO AND AUDIO PREAMP (FIG. C)
For use with the "Communicator" listed above. Plugs into crystal socket and is actuated by main T/R switch. Output is at 24 mc., with multiple tuned circuits to minimize spurious radiations. Built-in audio preamplifier greatly increases mike pick-up when desired. Self-contained power supply. Spotting switch permits "zeroing in". Highly stable.
Gonset Model 3024—Net Each..... **$84.50**

E

F

G


H

I

J

"SUPER-SIX" SIX-BAND CONVERTER (FIG. E)
Covers amateur 10-11-15-20-40 and 75 meter phone bands with adequate band spread. Also has 19 and 49 meter BC band coverage for casual listening. Very high sensitivity using 8-foot whip antenna. Separate BC antenna input. Low drift, noise factor and image response. Hi-Z antenna switch on 40 and 75. RF gain control and oscillator compensator on rear panel. Utilizes power supply of receiver to which attached. 5¼" x 3½" x 5¼" deep.
Gonset "Super-Six" Model 3030—
Net Each..... **$52.50**

3-30 CONVERTER MODEL 3002 (FIG. F)
General purpose, continuous coverage mobile converter covering 3 to 30 mc. High sensitivity on short whip. 1500 kc. output. (I.F.) Power provided by receiver. Four working tubes. 5¼" x 3½" x 5¼" deep. Drawn aluminum case. Net Each... **$44.75**

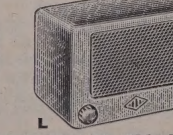
POLICE, MARINE, CAP CONVERTER MODEL 3003 (FIG. G)
Comparable tp 3-30 except range is 1.6 to 6 mc., in two bands. IF output, 1000 kc. 5¼" x 3½" x 5¼" deep.
Net Each..... **$46.00**

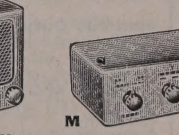
2 METER CONVERTER MODEL 3008 (FIG. H)
Covers 144 to 148.2 mc. for amateur or CAP fixed or mobile use. Superimposition tuning with 1000 kc. bandwidth speeds tuning and avoids images. High stability. 50 ohm coax. input, readily adaptable to Gonset open-wire line, or 300 ohm ribbon. 5¼" x 3½" x 5¼" deep. Net Each..... **$44.50**

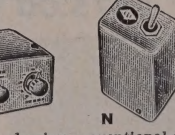
VHF AIRCRAFT ADAPTOR MODEL 3014 (FIG. I)
Covers range of 108 to 128 mc. when used with medium or low frequency aircraft receiver. Available for 6-12 volt operation (24 volts on special order). Series-gate noise clipper reduces most ignition noise below objectionable level. 5¼" x 3½" x 5¼" deep. (Specify 6 or 12 volts. Add **$5.00** for 12 volts.)
Net Each..... **$69.50**
Model 3015—Same as above, except with squelch. Net... **$79.50**

TWO METER CASCODE TUNER MODEL 3037 (FIG. J)
The receiver portion of the "Communicator". 6BQ7 cascode RF, 12AT7 mixer-oscillator, three stages of IF, second detector and low-level audio. Includes Gonset Noise Clipper with Gonset Squelch an optional feature. Requires power supply. 5¼" x 3½" x 5¼" deep. No squelch. Net Each..... **$89.50**
Deluxe Model 3038—With squelch. Net Each..... **$99.50**

K


L


M


N

O

P

AM-FM TUNERS (FIG. K)
Provide sensitive and stable receivers when used with auto, home or communications receivers. Include squelch and noise clipper, IF and low-level audio. Very compact. 5¼" x 3½" x 5¼" deep. **Model 3009 FM**—30-40 mc. FM. **Model 3009 AM**—30-40 mc. AM. **Model 3010 FM**—40-50 mc. FM. **Model 3010 AM**—40-50 mc. AM. **Model 3011 FM**—88-108 mc. FM. **Model 3012 FM**—156-162 mc. FM. **Model 3013 FM**—162-174 mc FM.
Any Model, Net Each..... **$69.50**

AUDIO AMPLIFIER—POWER SUPPLY (FIG. L)
Designed to supply output audio and power for tuners with low-level audio outputs. Built-in PM speaker, audio gain and tone controls. 6⅛" deep, 7" wide, 6¼" high.
Model 3034—6 volt DC input. Net Each..... **$44.50**
Model 3036—115 volt AC input. Net Each..... **$44.50**

DELUXE NOISE CLIPPER-SQUELCHER MOD. 3000 (FIG. M)
For any amateur mobile or communications receiver. Combines Noise Clipper with new Gonset adjustable squelch circuit, 4⅛" deep, 5¼" wide, 2⅛" high. Net Each..... **$24.50**

NOISE CLIPPER MODEL 3001 (FIG. N)
Original Gonset Noise Clipper. Easily installed on any receiver having conventional diode second detector circuits. Complete instructions supplied, ready to attach. Net Each.... **$9.25**

CASCODE PREAMPLIFIER MODEL 3027 (FIG. O)
Designed for use with two meter receivers to increase gain, signal-to-noise ratio and overall performance. Gain is 10 db, with noise figure 5 db over entire 2 meter band. Uses 6BQ7, whose heater and plate voltage are obtained from associated receiver. Standard coax. input socket and 30" lead is supplied. Also available for spot frequencies between 50 and 174 mc. 3" wide 3½" high, 3¾" deep. Net Each..... **$19.95**

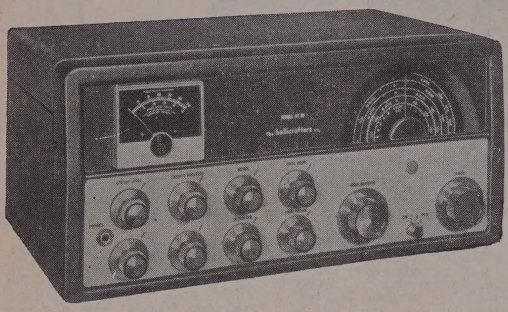
SIGNAL SLICER MODEL 3028 (FIG. P)
Highly selective IF amplifier for attachment to any auto or home radio using 455 kc IF system. Will increase sensitivity to 3.5 kc. Built-in clipper to greatly reduce ignition and other noises. Obtains power from associated receiver. 6⅛" wide, 7⅞" high, 3" deep. Net Each..... **$29.95**
Model 3048—For IF frequency of 262 kc. Net Each.... **$29.95**

STEERING POST MOUNTING BRACKET MODEL 3006
Universal, for all models of Gonset converters. Mount on either right or left hand side of steering post. Complete with mounting straps and hardware. Net Each..... **$3.90**

148-54B

hallicrafters RADIO

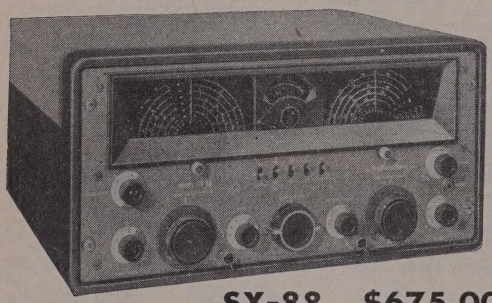
NEW HT-30 TRANSMITTER-EXCITER



HT-30 $349.95

Provides not only tops in single side band suppressed carrier transmission, but also AM and CW in one, compact, stable high efficiency unit only 18" x 9¾" x 12". Circuitry employs RF selective filter system which assures continued suppression of unwanted side band energy. Built-in VFO, as well as provision for quartz crystals, is available.
Features: Full band switching for 80, 40, 20 and 10 meters; built-in highly stable VFO full 100:1 ratio gear drive system full functional control—AM, CW, upper side band, lower side band; stability equals most crystals—.01%; full metering by front panel switch; ample gain for −55 db microphone. Unwanted side band at least 40 db down. Undesired beat frequency down 60 db or more. Provisions for coaxial output fitting; matching low pass filter available. TVI suppressed—control circuits and AC power lines. Provisions for external relays controlled by voice-operated systems. Bias supply for final outboard amplifier. Coordinated power amplifier available. **Output:** 35 watts peak. **Hum and Noise:** 40 do down. **Front Panel Controls:** Band Switch 80, 40, 20, 10 meters; V.F.O. or 3 quartz crystals; P.A. plate tuning; Speech level; Carrier level −0 to 100%; Meter selector; Drive control; Power Off, Standby, Transmit; Operation control; VOX, Calibrate MOX; Function Selector—AM, CW, Upper, Lower side band; Tuning—V.F.O.; Headphone jack. **Tubes:** (16 plus voltage regulator and rectifier)—6AU6 1st audio amplifier; 12AT7 2nd audio amplifier; 6AL5 voice control rectifier; 12AT7 2nd voice control amplifier; 2-6AU6 50 kc balanced modulators; 6C4 50 kc master oscillator; 12AT7 1700 kc conversion mixer; 12AT7 upper or lower side band oscillators; 12AT7 5.3 or 10.6 second conversion mixers; 12AT7 5.3 or 10.6 second beating oscillator and harmonic amplifier; 12AT7 V.F.O. balanced conversion mixer; 6AU6 V.F.O. oscillator; 6AU6 V.F.O. harmonic amplifier; 2-6CD6 linear power amplifiers; 5R4G rectifier; VR-150 voltage regulator. **Power:** 105/125 volts, 50/60 cycle AC. **Cabinet:** Grey black steel cabinet with brushed chrome trim and red pointers. Piano hinge top. **Size:** 18⅜" wide x 12⅞" deep x 9" high. Shipping Weight approximately 51 lbs.

SX-88 RECEIVER



SX-88 $675.00

Full frequency coverage from 535 kc to 33.3 mc. Full precision gear drive for main and band spread tuning. 10 watt inverse feedback and push-pull audio output, within 3 db from 20 to 10,000 cps. Exalted BFO for tops in single side band reception. Amplified and delayed AVC. Built-in 100 kc calibration crystal. Second conversion oscillators crystal controlled. Inertia tuning, both dials. Calibrated electrical bandspread 160, 80, 40, 20, 15, 11 and 10 meters. Logging scales and dial locks on each tuning shaft. Buffer amplifier in BFO circuit. Antenna trimmer. Tuning indicators resetable from front panel for max. calibration accuracy. Illuminated, dual S meter, calibrated S units and microvolts. 50 kc IF output jack via cathode follower for teletype converter, scopes, etc. Six position Band Width Control from 250 cps to 10 kc. Two RF stages. 4-position response tone control. 17 tubes plus VR and rectifier. **Frequency Range:** Band 1, 535-1710 kc; Band 2, 1690-3080 kc; Band 3, 2980-5570 kc; Band 4, 5370-10,000 kc; Band 5, 9.8-18.3 mc; Band 6, 17.8-33.3 mc. **Sensitivity:** Bands 2-6, 1 microvolt for ½-watt output or for 10 db signal-to-noise ratio. Band 1, 10 microvolts for ½-watt output. A built-in 100 kc crystal oscillator provides a marker signal every 100 kc throughout the entire tuning range. As both main and bandspread tuning have 100° logging scales, it is possible to use the SX-88 as an accurate frequency meter throughout its tuning range. Width, 20"; Height, 10⅜"; Depth, 18¼". Shipping weight, 85 lbs.

HT-20 100 WATT TRANSMITTER

HT-20 $449.50

T.V.I. proof transmitter. All spurious outputs are at least 90 db below the full rated output. The entire transmitter is built in the same manner as the finest laboratory signal generator. Every control lead and the AC power lines have special built-in filters. The antenna output has a special 50 ohm five-section coaxial filter. This transmitter is built and rated for continuous operation in commercial service with only 50° C. rise of all transformers.

SPECIFICATIONS

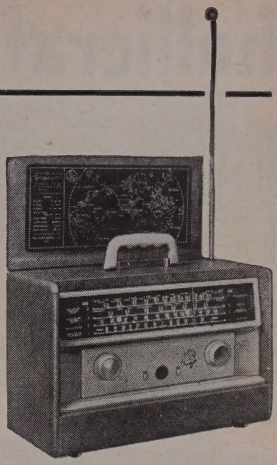
Tubes—6AU6, crystal osc. buffer; 6L6, buffer-doubler. 4D32, final amplifier; 6SL7, speech amplifier; 6K6, audio driver; **P.P. 807,** class "AB2" modulators; 5R4GY, hi-voltage rectifier; 5R4GY, hi-voltage rectifier; 5U4G, low voltage rectifier; 6BL7, bias rectifier; 6AL5, RF carrier rectifier.
Cabinet Size—20" x 12¼" x 17¼". Relay rack mounting. Panel size, 19" x 10½". Chassis, 17" x 16" x 3½". **Output**—100 watts phone carrier. **CW Output**—115 watts. **Modulation**—High level, 100%. **Frequency Range**—1.7mc to 31mc.

FEATURES

Spurious Output—Not less than 90 db below 100 watts on all frequencies above 40 mc.
Metering—All stages metered, single meter with 6 position meter switch, output tuning indication.
External VFO—Input provisions and power source for externa VFO with complete filtering and spurious output attenuation.
Front Panel Controls—Osc. Tuning, Bandswitch of Osc., Bandswitch of Buffer, Buffer Tuning, Final Tuning (Cont. all band), Crystal Selector (10 crystals and VFO position), Drive control, CW-phone Selector Switch, Range Switch, Meter Switch, Output Switch (Off-Low-Full), Send-Receive Switch, Audio gain control, Power off Toggle Switch.
Power Input—Standby: 147 watts, CW Keydown, AM Zero Mod., all at 117 volts.
Microphone Input—High impedance into Amphenol 75 CLPC1-M, .004 volt across 250,000 and 180 mmfd at 400 cps for 100% modulation or—56 db microphone output for full modulation.
Audio Frequency Characteristics—Harmonic distortion at 100% modulation and 400 cps, 10% or less. Hum and noise not less than 40 db below 100% modulation. Frequency response ±1½ db from 265 to 3000 cps.
External RF Drive—At rear chassis socket (coaxial SO-239) (CPH 49194) style.
Power—105-125 volts, 50-60 cycle.
Shipping Weight—130 lbs.

hallicrafters RADIO

NEW S-93 FOUR BAND 3-WAY PORTABLE RECEIVER



This new four band, 3-way, high performance portable receiver meets a need, not only in the amateur field, but also will be in constant demand by yachtsman, aviation enthusiast and sportsman. This is not an ordinary 3-way portable because this set covers four important bands—170 to 400 kc for airway ranges, marine beacon, and airfield towers; 1540 to 1600 kc, the standard AM broadcast band; 2 to 6 mc, ship-to-shore, amateur, short-wave tropical band and many others; 6 to 18 mc, more short waves, amateurs, etc. **Features:** 4 bands—170 to 400 kc; 540 to 1600 kc; 2 to 6 mc; 6 to 18 mc. Low noise—high gain loop on broadcasts and long wave. Telescoping whip on short wave. BFO and standby switch. World call zone map. Three-way operation plus provisions for 220 volt AC-DC export adapter. Small, compact—only 16¼″ x 10⅛″ x 7⅜″. **Tubes:** 1U4 RF amplifier; 1L6 converter; 1U4 IF amplifier; 1U5 detector and audio amplifier; 3V4 audio output; selenium rectifier. **Controls:** Sensitivity/Volume; CW/Phone switch; Standby-receive switch; Tuning/Band switch. **Cabinet:** Grey leatherette over seasoned wood. White lettering, silver handle, red switches and telescoping antenna tip. Silver on grey leatherette international prefix map inside cover. Red pointer and silver knob trim. **Size:** 15″ wide x 10½″ high (top closed)—17¾″ (top open) x 8″ deep. **Power:** 105/125 volts, 50/60 cycle AC or battery operated. Shipping Weight approximately 19 lbs.

S-93 $99.95

NEW SX-96 SELECTABLE SIDE BAND RECEIVER

SX-96 $249.95

- **FULL PRECISION GEAR DRIVE DIAL SYSTEM**
- **CRYSTAL-CONTROLLED 2ND CONVERSION OSCILLATOR**
- **SELECTABLE SIDE BAND OPERATION**
- **MIXER-TYPE SECOND DETECTOR**
- **LOW DRIFT**
- **NEW STYLING**

This new receiver incorporates major improvements in stability by additional temperature compensation of the high frequency oscillator circuits and the employment of **crystal control** second conversion oscillators.

Gear Drives are used on both main tuning and band spread dials. Hallicrafters famous 50 kc highly selective IF system is used, plus a mixer-type second detector which greatly reduces intermodulation distortion on single side band reception. Upper or lower side band is selectable by means of a panel switch.

Features: Full precision gear drive dial system; second conversion oscillator crystal controlled; selectable side band operation; mixer-type second detector; low drift; new styling.

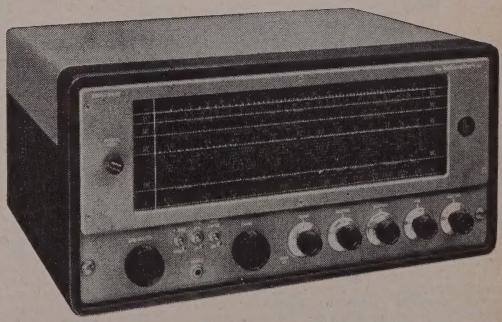
Tubes and Functions: 6CB6 RF amplifier; 6AU6 1st converter; 6C4 HF oscillator; 6BA6 2nd converter; 12AT7 dual crystal second converters; 2-6BE6 50 kc IF amplifiers; 6BE6 50 kc mixer-type second detector; 6AL5 AVC—noise limiter; 6SC7 1st audio and BFT; 6K6 power output; 5Y3 rectifier; VR-150 voltage regulator.

Controls: Sensitivity; Band Selector; Volume; Tuning; AVC On/Off; Noise Limiter On/Off; Bandspread; Selectivity; Pitch Control; Reception; Standby; Phone jack.

Cabinet: Grey black steel cabinet with brushed chrome trim and red pointers. Piano hinge top. **Size:** 18⅜″ wide x 8½″ high x 10⅝″ deep. **Shipping Weight:** Approximately 43 lbs. **Power:** 105/125 volts, 50/60 cycle AC. Supplied less speaker. Use Hallicrafters Model R-46A.

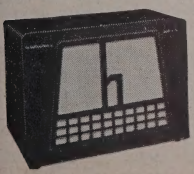
SX-62A RECEIVER

World's finest receiver for the all-wave listener. Continuous coverage from 540 kc through to 109 mc in six bands. Provides communications-receiver performance in simplified form. Only one band lights up at a time. Crystal calibrated oscillator built in to enable accuracy check of dial pointer at any time. Two r-f stages, three i-f stages to bring in even the weakest stations. Temperature compensated, voltage regulated to prevent fading caused by frequency "drift". Six-position selectivity control with crystal filter for extra tuning sharpness. High fidelity audio with four-position tone control and 10-watt push-pull output. Phono jack for playing records. 500, 5000-ohm outputs for separate speaker.



SX-62A $349.95

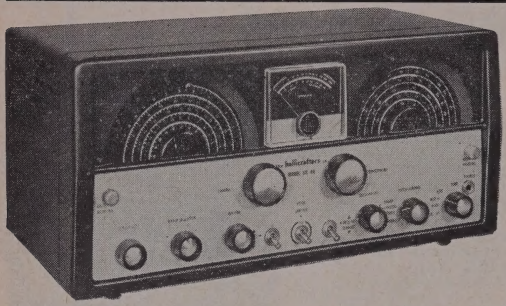
Satin black steel cabinet with light gray panel and chrome trim; 20″ x 10½″ x 16″ deep. Shipping Weight, 66 lbs. 14 tubes plus rectifier. For 105/125 V. AC.



R-46-A PM Speaker $19.95

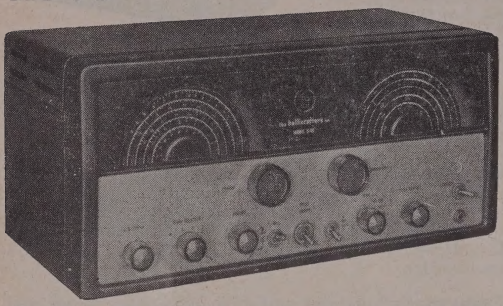
New 10″ PM in Satin black cabinet, specially designed for use with SX-71 or S-76, also suitable for SX-62. 80 to 5000 cycle range. 500-ohm matching transformer, 15″ wide, 10⅞″ high, 10⅞″ deep.

hallicrafters RADIO

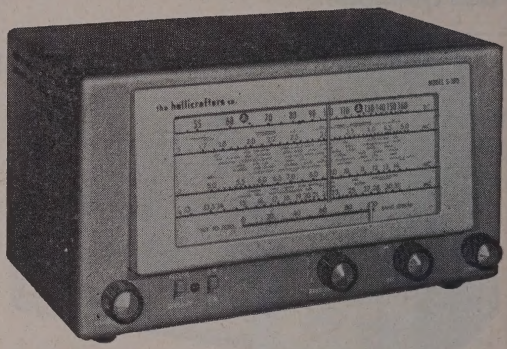


SX-99

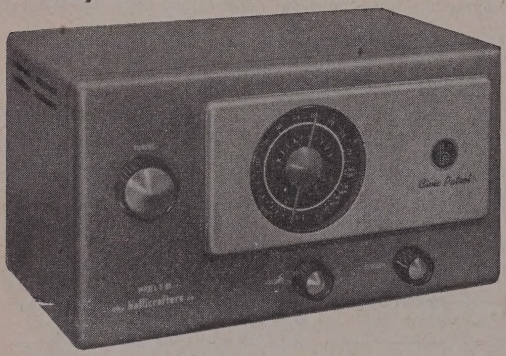
S-53A



S-85, S-86



S-38D



S-94, S-95

NEW MODEL SX-99 RECEIVER

Covers broadcast band 540-1680 kc plus three short-wave bands 1680 kc-34 mc, calibrated for 10, 11, 15, 20, 40 and 80 meters on large, easy-to-read bandspread dial. Calibrated electrical bandspread; "S" meter; crystal filter; antenna trimmer; one RF stage, two IF stages; terminals on rear for 3.2 and 500 ohm speakers. Switches for automatic noise limiter, code reception, 3-position tone control and code pitch control. Separate bandspread tuning condenser. New styling. 7 tubes plus rectifier. Grey-black steel cabinet with brushed chrome trim. Piano hinge top. 18⅜" wide x 8½" high x 11" deep. Shipping Weight, 36 lbs. approx. For 105/125 volt, 50-60 cycle AC.
Model SX-99 Receiver—Less speaker. Net Each.... **$149.95**

NEW MODEL S-85, S-86 RECEIVERS

10, 11, 15, 20, 40 and 80 meter amateur bands calibrated on large, easy-to-read dial. Separate bandspread tuning condenser. Calibrated bandspread; two IF stages; broadcast band 540-1680 kc. Three short-wave bands 1680 kc-34 mc. Switches for automatic noise limiter, code reception, 3-position tone control and code pitch control. **Built-in speaker.** Controls: Sensitivity, Band Selector, Tuning, Volume, Noise Limiter On/Off, AM/CW; Tone, Pitch, Standby/Receive, Phones jack. 7 tubes plus rectifier. Grey-black steel cabinet, brushed chrome trim and red pointers. Piano hinge top. 18½" wide x 8⅞" high x 10" deep. Shipping Weight, 36 lbs. approx.
Model S-85 Receiver—50-60 cycle AC, 105/125 volts.
Model S-86 Receiver—50-60 cycle, AC-DC.
Either, Net..... **$119.95**

NEW MODEL S-94, S-95 CIVIL PATROL RECEIVERS

Replace popular models S-81 and S-82. S-94 covers from 30 to 50 mc and the S-95 from 150 to 173 mc. These new sets are over 10 times as sensitive, have greatly increased audio power output and include an extremely reliable adjustable **built-in relay squelch system.** This type of squelch disables the entire audio system and not a murmur can be heard from the speaker until a signal is received. Low noise grounded grid RF amplifier; separate high gain DC amplifier for squelch system; wide impedance range antenna input system; new, attractive smooth grey and silver finish cabinet; low oscillator radiation; greater frequency stability; provisions for headphones. **Built-in speaker.** 8 tubes and selenium power rectifier. 12⅞" wide x 7" high x 7¼" deep. Shipping Weight 12½ lbs. approx. 105/125 volts, 50-60 cycles AC.
Model S-94 or S-95 Receiver—Net Each..... **$59.95**

MODEL S-53A RECEIVER

Unquestionably the finest small communications receiver built. Several steps better than the S-38C, but not quite up to the larger S-40B. Covers 540 kc to 1600 and 2.6 to 31 Mc., 48-54.5 Mc in five bands. Two i-f stages. Has separate sensitivity and volume controls; separate electrical bandspread tuning with calibration for 48-54.5 Mc band; Noise limiter, Rec./Standby, BFO, High-low tone, and Speaker/Phones switches. Built-in PM speaker. Temperature compensated to reduce fading.
Satin black steel cabinet, brushed chrome trim, 12⅞" x 7" x 7¾" deep. Piano hinge at back swings up top. Phono input jack, 7 tubes plus rectifier. For 115 volt 50/60 cycle AC.
Model S-53A Receiver—Net Each..... **$99.95**

MODEL S-38D RECEIVER

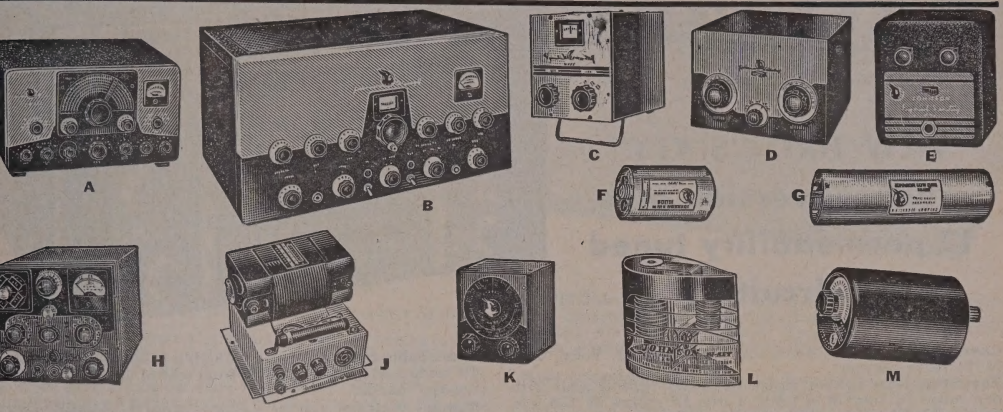
The radio that amazes even the experts! Pulls in broadcast stations in weak signal areas where ordinary sets fail. Also offers world-wide reception for the short-wave listener and the new radio amateur. Has regular communications-type controls for greater flexibility of operation. Covers Broadcast Band and three short-wave bands 540 kc to 32 Mc.

Maximum sensitivity and selectivity from expertly engineered chassis—far superior to ordinary radios having same number of tubes. Separate Fine Tuning control to separate stations on crowded short-wave bands. Built-in PM speaker. Oscillator for reception of code signals.

Grey steel cabinet with silver frame trim. Large, easy-to-read dial Size 12⅞" wide x 7" high x 7¼" deep. Shipping Weight 13 lbs. For 105/125 volt, 50/60 cycle AC/DC operation.
Model S-38D Receiver—Net Each..... **$49.95**

26-54D

E. F. Johnson Amateur Gear



MODEL 240-161
VIKING RANGER TRANSMITTER-EXCITER (FIG. A)

ugged, compact, offering more features than any other transmit-r exciter ever built for amateurs. Self contained, TVI suppressed, -watt CW or 65-watt phone transmitter, 100% modulated. -net antenna load matches 50 to 500 ohms. As exciter, will drive W level tubes and provides high quality speech driver system for gh powered modulators. Built-in, extremely stable VFO. Sepa-te calibrated scales for each of the seven bands on wide band-read dial. Excellent (break-in) keying stability. Nine-pin recep-cle on rear provides RF and AF leads for exciter operation, plus 3 VAC at 5.5 amps, 500 VDC at 500 ma, 300 VDC at up to 50 a along with the full 33 watts output of the modulator. **Tubes:** U6 VFO, 2-6CL6 crystal oscillator and buffer, 6146 final ampli-r, 6AQ5 clamper, 12AX7 speech amp., 12AU7 audio driver, 1614 p-p mod., 6AX5 low voltage rect. and 5R4 high voltage ct. 15" x 11 11/16" x 9". Wt. 54 lbs.

hnson No. 240-161 Viking Ranger Kit— ith tubes, less crystal, key and mike. Net Each.... $214.50

hnson No. 240-161-2 Viking Ranger—Same as kit ove but fully wired and tested. With tubes. Net Ea. $293.00

MODEL 240-102 VIKING II TRANSMITTER KIT (FIG. B)

xtremely popular TVI suppressed transmitter, 130-watt CW and 0-watt phone output. Covers seven bands, 160 to 10 meters, with mplete band switching. Heavily copper plated cabinet, special ields for dial window, meter and shaft openings, power lead ters plus internal filters at RF tubes effectively eliminate spuri-s radiation. Pi-network output tuning provides up to 30 db cond harmonic attenuation before external filtering. **Tubes:** RF ct. 6AU6 osc., 6AQ5 buffer/doubler, parallel 6146 output amp. odulator: pp 807's operating class AB1 with 6AU6 speech amp. d 6AU6 driver. Par. 5R4GY HV rect. 5V4G LV rect. with 6AL5 as rect. and 6AQ5 clamper VR. Uses 50-60-cycle 115-volt AC ly. Size: 20" x 10 5/16" x 13". Wt. 65 lbs.

hnson No. 240-102 Viking II Kit—With tubes, less ystal, key and microphone. Net Each..... $279.50

hnson No. 240-102-2—Viking II wired and tested. et..... $337.00

MODEL 240-122 VIKING VFO KIT (FIG. C)

ariable frequency oscillator with output on 160 and 40 meter nds for frequency multiplying transmitters. Accurately cali-ated for amateur bands. 6 to 1 vernier tuning with high reset curacy. Power requirements, 6.3 volts, .3 amperes, 250-300 volts, ma., DC unregulated.

hnson No. 240-122 VFO Kit—With tubes (6AU6, A2), Net..... $45.50

hnson No. 240-122-2 VFO—Wired and tested. Net Ea. $69.75

MODEL 250-23 "MATCHBOX" (FIG. D)

ransmitting antenna coupling system, performs all trans. line atching and switching for med. power transmitters. Bandswitch-g and completely self contained. Will load infinite var. of anten-s. Nom. input imped. 52 ohms, power rating 250 watts. For CW, keying monitor may be actuated by the RF probe provided. hangeover relay switches antenna from receiver to transmitter d grounds receiver terminals in transmit position, also mutes eiver while transmitting. 9 7/8" x 10 1/2" x 7". Wt. 6 lbs.

hnson No. 250-23 Match Box—Complete, wired and sted. Net Each..... $49.85

MODEL 250-25 SIGNAL SENTRY (FIG. E)

F actuated monitor for phone or CW. Non-freq. sensitive, trig-red directly by transmitter RF. Plugs into receiver headphone ck. Headphones plug directly into monitor. 3 7/8" x 3 5/8" x 3 3/4". ired and tested. Less tubes (12AX7 and 12AU7). $18.95

hnson No. 250-25 Signal Sentry—Net Each.....

ODEL 250-24 STANDING WAVE RATIO BRIDGE (FIG. F)

rovides accurate measurements of standing wave ratio enabling operator to adjust his transmission line for minimum SWR. npedance is 52 ohms, can be changed to other value by changing andard resistor. Shielded construction, equipped with SO-239 ax. connectors and polarized meter jacks. 5/8" diameter, 4 1/2" length. Net Each..... $9.75

MODEL 250-20 LOW PASS FILTER (FIG. G)

ur individually shielded sections. Handles at least 1 KW RF. ut-off freq. 45 mc. M-derived end sections. Filter works effec-vely in 52-ohm transmission line, or in 52-ohm link line between ansmitter and antenna coupler, such as the "Matchbox". 2 1/2" ameter x 9 3/8" long. Wt. 1 1/2 lbs. $13.50

hnson No. 250-20 Low Pass Filter—Net Each.....

MODEL 240-141 VIKING MOBILE TRANSMITTER KIT (FIG.H)

Power-packed mobile transmitter kit for advanced amateurs. 60 watts PA input; instant bandswitching (75, 40, 20, 15, 11 and 10 meter) gang tuned. 100% AM modulation. Sufficient gain for high imped. or carbon mike. **Tubes:** RF Sect. 6BH6 osc., 6AQ5 buffer/doubler, 807 PA. Modulator pp 807. 6BH6 speech amp. and 6BH6 driver. RF bias system protects RF tubes and modulators. Tune-Receive-Transmit switch enables non-swish VFO tuning and receiver muting. Unit may be wired for either 6 or 12 volts. Kit complete with all parts and instr., less tubes, crystals, mike and power supply. **Dimensions:** 6 1/8" x 7 1/8" x 10 5/16". Wt. 16 lbs.

Johnson No. 240-141 Mobile Transmitter Kit— Net Each..... $99.50

239-102 DYNAMOTOR POWER SUPPLY (FIG. J)

DC rating 500 volts, 200 ma, intermittent. Supplies plate voltage for all stages of Viking Mobile; maximum PA input approx. 50 watts. Supplied with basic power and control connectors required for the Mobile. Completely wired and assembled. 6 volt primary input. 6 1/8" high, 7 1/4" deep, 7 1/8" wide. $89.50

Johnson No. 239-102 Power Supply—6-volt. Net Ea...

Johnson No. 239-104 Power Supply—12-volt. Net Ea.. $92.50

MODEL 240-152 VIKING MOBILE VFO (FIG. K)

Very compact 4" x 4 1/4" x 5" VFO designed specifically for mobile use. Ceramic insulated coils, trimmers and switches. Edge-lighted lucite dial calibrated to all bands 80 through 10 meters. Requires 5.7-6.9 VDC at .45 amp, or 11.4-13.8 VDC at .25 amp and 250-300 volts at 20 ma unregulated. Kit includes all parts, hardware, instructions. With tubes. $33.95

Johnson No. 240-152 Viking Mobile VFO Kit—Net Ea.

Johnson No. 240-152-2 Mobile VFO—Wired and tested. Net Each..... $49.95

MODEL 250-22 "BI-NET" (FIG. L)

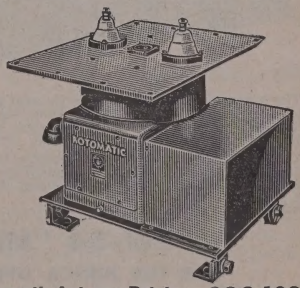
Dual mobile antenna loading network for 10 and 20 meter bands. Mounts in center of standard mobile whip. Operation automatic, needs only initial adjustment. Wt. 14 oz. Net Each.... $10.95

MODEL 250-26 "WHIPLOAD-6" (FIG. M)

Bandswitching mobile antenna loading coil. Provides high efficiency base loading with instant coverage on six amateur bands. Large diameter airwound coil, dial scale for accurate reset. Extremely high "Q". Fibre-glass housing. Mounts on whip. Use with Bi-Net for 10-20 meter operation without switching. $19.50

Johnson No. 250-26 Antenna Loading Coil—Net Each.

IMPROVED ROTOMATIC ANTENNA ROTATOR



Designed for rigorous service; will support up to 175-lb. beam antennas, even with icing and high winds. 1 1/4-rpm rotation 360° and reverse. Chrome plated slip rings for quiet operation, low contact resistance. Cast aluminum housing, 5/16" steel rotating table. Tilts 90° to adjust; may be rotated while tilted. Control unit illum. Dial shows azimuth setting. Rotation and reverse switch, power switch, antenna relay switch. Wt. 76 lbs.

Johnson No. 138-112 Rotomatic Antenna Rotator— Net Each..... $324.00

JOHNSON ANTENNA ARRAYS

Boom Assemblies **Element Kits.** T match, Hardware element clamps. Less booms.

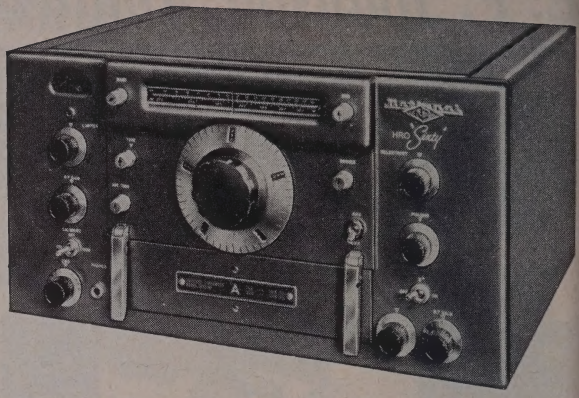
No. 138-	For Beams Elem.	Meters	Net Each	No. 138-	Kit Descr. Elem.	Meters	Net Each
-151	3	10	$13.00	-210-3	3	10	$43.50
-152	3	15	17.00	-210-4	4	10	56.50
-153	3	20		-215-3	3	15	49.00
	4	15 or		-215-4	4	15	62.00
	Dual inter-			-220-3	3	20	77.50
	laced beams		24.00	-108	Switch. Array		19.60

542-55A

National ©

EST. 1914

NEW HRO-"SIXTY" dual conversion plus 12 permeability tuned circuits!

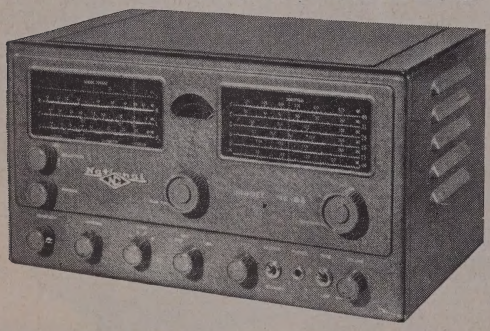


Coverage: 50-430 kc, 480 kc-35 mc, 50-54 mc. Voice, CW, NFM (with adapter).
Features: Edge-lighted, direct frequency-reading scale with one range in view at a time. Three IF stages at 456 kcs, employing 12 permeability tuned circuits on all bands plus one IF stage at 2010 kcs on all frequencies above 7 mcs. Switching is done automatically when coil set is plugged in. Built-in, isolated heavy-duty power supply. Sensitivity of 1 mv or better at 6 db sig. noise. Selectivity variable from 8 kc overall to approximately 1200 cps at 40 db. Current regulated high frequency oscillator and second converter heaters. Voltage-regulated high frequency oscillator and S-meter amplifier. Negligible drift after warm-up. Micrometer dial for logging. Provision for crystal calibrator unit. Variable antenna trimmer. Lively S-meter. Miniature tubes in front end and high frequency oscillator. Oscillator circuits not disabled when receiver is "Send" position.
High fidelity push-pull audio (±2 db, 50-15,000 cps) with phono jack. BFO switch separated from BFO control. Illumination dimmer control. Accessory socket for Select-O-Ject
Controls: Bandswitch; Oscillator; Tone; Antenna Trimmer; Dimmer; AVC, Limiter; AF Gain; Calibration; CWO; Phasing; Selectivity; On-Off; RF Gain; AM-NFM-PHONO.

Size: Table 19¾" wide x 10⅛" high x 16½" deep Rack; Rack 19" wide x 10½" high x 17 1/16" from rear of front panel including 1⅛" handle.
Tubes: 2-6BA6; 1-6C4; 2-6BE6; 3-6SG7; 2-6H6; 2-6SJ7; 1-6SN7; 2-6V6GT; 1-OB2; 1-4H4; 1-5V4G.
Includes coils A, B, C, D, 1.7-30 mc. Amateur Net
HRO-60R (rack model) or **HRO-60T** (table model). Either model, less speaker..... **$533.50**
HRO-60RS—Rack model 10" PM speaker. Net Each **$26.00**
HRO-60TS—Table model 10" PM speaker. Net Each **16.00**
HRO-60-SC2—Speaker and container for 10 coil sets. Net..... **49.75**
HRO-60-XCU-2—100/1000 kc crystal calibrator. Net **24.50**
HRO-650S—6 volt vibrator-type supply. Net Each. **75.00**
MRR-2—Table rack. Net Each..... **16.85**
NFM-83-50—Narrow band FM adaptor. Net Each.. **17.95**
E and F Coils—(900-2050 kc and 480-960 kc). Either coil. Net Each..... **24.50**

Other coils available covering 50 kc to 430 kc, 21.0 to 21.5 mc bandspread, 27 to 30 mc bandspread, 25 to 30 mc and 50 to 54 mc. Each coil set furnished with calibrated Lucite scale for direct reading dial.

THE NEW NATIONAL MODEL NC-98 RECEIVER



The lowest priced receiver with Crystal Filter, S-Meter and choice of Bandspread. In a class by itself—in performance and price. The **NC-98** offers calibrated electrical bandspread on the 10-11-15-20-40 and 80 meter ham bands.

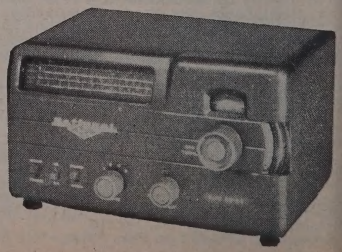
The **NC-98SW** has calibrated electrical bandspread on 17-19-25-31 and 49 meter and electrical bandspread on all other frequencies with foreign, ship, police, aircraft and amateur frequencies clearly marked.

SPECIFICATIONS

General Coverage: .55-1.6 mc, 1.6-4.7 mc, 4.7-14.0 mc, 14.0-40.0 mc. **Bandspread: (NC-98)** 3.5-4.0 mc, 6.9-7.3 mc, 14.0-14.35 mc, 20.4-21.5 mc, 26.9-30.0 mc; **(NC-98SW)** 5.95-6.2 mc, 9.0-10.0 mc, 10.5-12.0 mc, 15.1-15.5 mc, 17.4-18.0 mc.
Selectivity: Xtal broad 1.5 kc, Xtal sharp 450 cycles, Xtal off approximately 7 kc. Phasing control affords ⅛ maximum of 30 db attenuation to unwanted heterodynes.
Sensitivity: One RF and two IF stages are employed in a modern superhet. rodyne circuit to give the receiver superior sensitivity and image rejection.
Controls: Main tuning, bandspread tuning, band selector, selectivity off, broad, sharp; phasing; sensitivity; AC on/off—volume; receive-standby switch; Hi-Lo tone switch; CWO pitch; antenna trimmer; CWO/MVC/AVC/ANL switch. Signal strength meter indicates signal strength in S units from 1-9 and in db above S-9 from 0-40 db. Mechanical and electrical zero adjustment.
Power Consumption: 65 watts.
Audio System: Undistorted power output 1.5 watts; frequency response (at 3 db points) (Hi) 100-4000 cps, (Lo) 100-2000 cps. Phono input jack at rear.
Accessory Socket: Will take NFM-83-50 narrow band FM adapter. B—230 volts at 10 ma. Fil.—6.3 volts at 1 amp. Provides for send-receive remote switch.
Tubes: 1-6BA6, 1-6BE6, 1-6C4, 2-6BD6, 2-6AL5, 2-12AX7, 1-6AQ5, 1-5Y3/GT.
Finished in Hammertone gray enamel, highly resistant to scratching and marring. Size: 8¾" high, 16½" wide, 10½" deep. Shipping weight, 30 lbs.
Model NC-98 Receiver—Amateur Net..... **$149.95**
Model NC-98SW Receiver—Amateur Net..... **$149.95**
Model NC-98TS Matching Speaker—Amateur Net.. **11.00**

SW-54 "MIGHTY MIDGET"

FOR THE JUNIOR OPERATOR—FOR STANDBY USE AS A HOME TABLE RADIO

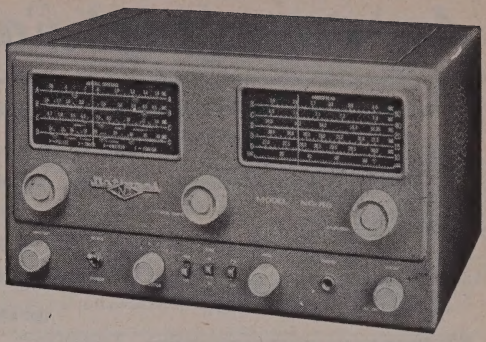


Coverage: Entire frequency range from 540 kc to 30 mc in 4 bands. Voice, music or code. **Features:** Sensitive and selective superheterodyne circuit, using new miniature tubes. Slide rule general coverage dial with police, foreign, amateur and ship bands clearly marked. Unique plastic bandspread dial is adjustable to assure logging accuracy over entire range. Built-in speaker and power supply. **Controls:** Main tuning and Bandspread, On-Off and Volume, Receive-Standby, Bandswitch, AM-CW, Speaker, Phones. **Tube Complement:** 12BE6 converter; 12BA6 CW oscillator; IF amplifier; 12AV6 2nd detector, 1st audio, AVC; 50C5 audio output; 35Z5 rectifier. **Size:** 11" wide, 7" high, 7" deep. Built-in speaker.
Model SW-54 Receiver—Amateur Net..... **$49.95**

National ©

EST. 1914

NEW NC-88 RECEIVER
"World Master"



FEATURES: Calibrated bandspread for 80, 40, 20, 15 and 10 meter bands (large 6" indirectly-lighted lucite scales). Advanced A.C. superhet circuit uses 8 high gain miniature tubes plus rectifier. Covers 540 kc to 40 mc in 4 bands. Tuned RF stage. Two IF stages. Two high fidelity audio stages with phono input and 2-position tone control. Built-in speaker. Antenna trimmer. Separate high frequency oscillator. Sensitivity control. Series valve noise limiter. Delayed AVC. Headphone jack, receive-standby switch.

COVERAGE: Continuous from 540 kc to 40 mc in 4 bands.

TUNING SYSTEM: Main tuning and bandspread tuning capacitors are connected in parallel on all bands, permitting bandspread tuning at any frequency within the range of the receiver and a logging scale is provided. One RF stage is employed on all bands and the trimmer for the 1st RF stage is controlled from the front panel.

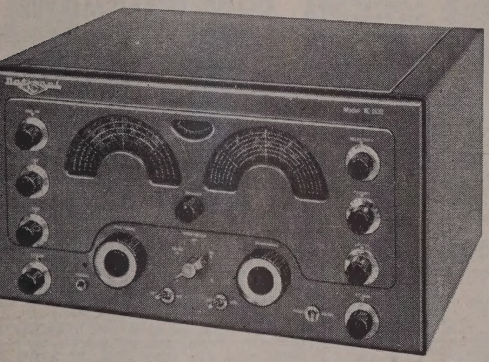
CONTROLS: Main Tuning; Bandspread Tuning; Band Selector; Sensitivity; AC On/Off—Volume; Receive/Standby Switch; ANL On/Off Switch; Tone Hi-Lo Switch; CWO Pitch; Antenna Trimmer; AM/CW switch.

TUBE COMPLEMENT: 6BA6, 1st RF; 6BE6, mixer; 6C4, HF Osc.; 6BD6, 1st IF; 6BD6, 2nd IF; 6AL5, 2nd det., AVC; 12AX7, 1st Audio and BFO; 6AQ5, audio output, 5Y3GT rectifier.

Hammertone Gray enamel finish. Size, 8¾" high x 16½" wide x 10½" deep. Shipping Weight, 30 lbs. Power consumption, 65w.

NC-88—With built-in speaker..... **$119.95**
Amateur Net

MODEL NC-183D
Dual Conversion Receiver



NC183DR—Less Speaker..... **$399.50**
Amateur Net

COVERAGE: Continuous from 540 kcs. to 31 mcs. plus 48 to 56 mcs. for 6-meter reception.

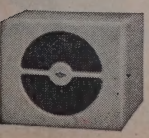
FEATURES: Two tuned RF stages. Three stages of IF. Voltage regulated oscillator and BFO. Main tuning dial covers range in five bands. Bandspread dial calibrated for amateur 80, 40, 20, 15, 11-10 and 6 meter bands. Bandspread usable over entire range. Six-position crystal filter, new-type noise limiter. High fidelity push-pull audio. Accessory socket for NFM adaptor.

CONTROLS: CWO Switch; CWO Pitch; Tone; AF Gain; Main Tuning; Bandspread; Antenna Trimmer; Bandswitch; Send-Receive; Phono-Radio; Selectivity; Phasing; Limiter; RF Gain.

TUBE COMPLEMENT: 2-6BA6 RF; 2-6BE6, 1st and 2nd converter; 3-6BA6, IF; 1-6AL5, 2nd detector—AVC; 1-6AH6, AVC amplifier; 1-6SJ7, CW oscillator; 1-6AL5, limiter; 1-6SJ7, 1st audio; 1-6J5 phase inverter; 2-6V6GT, audio output; 1-OB2, voltage regulator; 1-5U4G, rectifier.

ACCESSORIES

NFM-83-50—Narrow band adaptor. Net Each..... **$17.95**



PM SPEAKER FOR NC-183DR, 125

Speaker in smooth gray enameled metal baffle to match either of the above receivers provided as standard equipment, with both units at additional cost.

No. 183TS—Net Each... **$16.00**
No. 125TS—Net Each..... **$11.00**

MODEL NC-125
Incorporates Select-O-Ject

NC-125—Less Speaker..... **$210.95**
Amateur Net

COVERAGE: 560 kcs. to 35 mcs. in 4 bands. Voice or CW.

OUTPUT: 4 watts maximum.

FEATURES: Edge-lighted, direct-reading scale with amateur, police, foreign and ship frequencies clearly marked. Bandspread available over entire range. Average sensitivity of 3 microvolts for 10 db signal-to-noise ratio. Lively S-meter reads S9 to 50 mv. signal. Automatic Volume Control, Automatic Noise Limiter, Voltage-regulated, stabilized oscillator (holds signal regardless of line fluctuations); audio flat to 10,000 cps: jack for phono input or NFM adapter; socket for battery operation; extra accessory socket.

CONTROLS: Main Tuning, Bandspread, Select-O-Ject Frequency Control, Select-O-Ject Boost Control, Send-Receive Switch. Code Pitch Control, CWO-MVC-AVC-ANL Switch, AF Gain, Trimmer (Matches antenna to input), Bandswitch, RF Gain.

TUBES: 3-6SG7, 1-6SB7-Y, 1-6H6, 3-6SL7-GT, 1-6V6GT, 1-0D/3VR150, 1-5Y3GT.

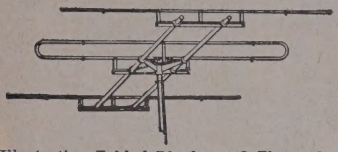
Power source, 105-130 volts, 50/60 cycles.

Antenna Input Impedance: 300 ohms.

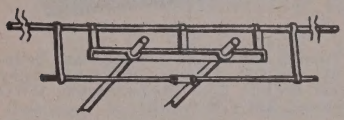
119-55A

Amateur Antennas and Equipment

HY-LITE STANDARD INSULATED BEAMS



Illustrating **Folded Dipole on 3 Element Unit.** Available only for 6 and 10 meters. Not available for 15 or 20 meters.



Illustrating **"T", Match Section.** Available for all units—6, 10, 15 and 20 meters.

- **FULLY ADJUSTABLE**
- **ALL ALUMINUM**
- **PRICED RIGHT**
- **BUILT RIGHT**
- **PERMANENT**

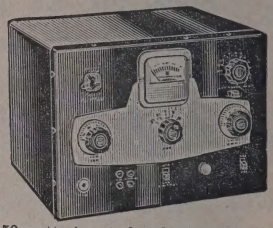
IMPEDANCE MATCH

Folded Dipole..... 52 Ohms
"T" Match.....300 Ohms

Hy-Lite Standard Insulated Beams are quickly and easily assembled and are ideal for any transmission location. Here are some of the features that make Hy-Lite Beams different:—Elements on the 6, 10-11 meter beams are made of ⅝" and ¾" telescopic aluminum tubing of the highest grade. The elements of the 15 and 20 meter beams are of ⅞" and 1" tubing. Fitted with locking clamps for securing the setting after tuning. Elements are supported on heavy steatite insulators. Heavy rubber-covered clamps hold them firmly. Strong aluminum castings support the reflectors, directors and antenna elements which are easily adjusted by Allen set screws (wrench supplied).
The Hy-Lite Beams are rigid and sturdy and mounted on a standard size 6 foot mast. All 6, 10 and 15 meter beams supplied with .1 and .15 spacing. 3 element 20 meter units supplied with .075 and .1 spacing.

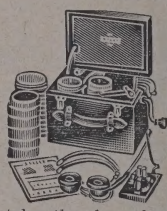
Model No.	Description	Shipping Weight	Amateur Net Price
3E6T	3 Element 6 Meter with "T" Match	26 lbs.	$33.00
3E6F	3 Element 6 Meter with Folded Dipole	27 lbs.	33.60
4E6T	4 Element 6 Meter with "T" Match	32 lbs.	38.75
4E6F	4 Element 6 Meter with Folded Dipole	33 lbs.	39.35
3E10T	3 Element 10 Meter with "T" Match	30 lbs.	41.80
3E10F	3 Element 10 Meter with Folded Dipole	31 lbs.	42.40
4E10T	4 Element 10 Meter with "T" Match	36 lbs.	51.35
4E10F	4 Element 10 Meter with Folded Dipole	37 lbs.	51.95
2E15T	2 Element 15 Meter with "T" Match	27 lbs.	45.50
3E15T	3 Element 15 Meter with "T" Match	36 lbs.	53.00
2E20T	2 Element 20 Meter with "T" Match	33 lbs.	47.95
3E20T	3 Element 20 Meter with "T" Match	42 lbs.	64.95
4E10-15T	2 Element 10 Meter with "T" Match 2 Element 15 Meter with "T" Match	43 lbs.	72.50
4E10-20T	2 Element 10 Meter with "T" Match 2 Element 20 Meter with "T" Match	49 lbs.	74.95
4E15-20T	2 Element 15 Meter with "T" Match 2 Element 20 Meter with "T" Match	52 lbs.	89.40
6E10-15T	3 Element 10 Meter with "T" Match 3 Element 15 Meter with "T" Match	57 lbs.	95.00
6E10-20T	3 Element 10 Meter with "T" Match 3 Element 20 Meter with "T" Match	63 lbs.	98.95
E15-20T	3 Element 15 Meter with "T" Match 3 Element 20 Meter with "T" Match	69 lbs.	118.00

NEW JOHNSON VIKING "ADVENTURER"



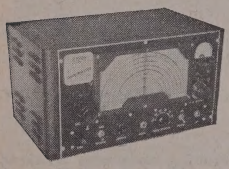
A 50-watt input bandswitching transmitter of particular interest to the Novice and/or beginner in "ham" radio. Features TVI shielding, Pi-network tuner, provision for external VFO, 807 final and self-contained power supply. Receptacle on rear allows use of the full plate and filament voltages to run auxiliary equipment. Easy to build. Size: 7⅜" h., 10⅜" w., 8⅛" d. Weight approximately 13 lbs.
Johnson "Adventurer"—Full instructions. Net Each..... **$54.95**

INSTRUCTOGRAPH CODE TRANSMITTER



This automatic code transmitter with its book of instructions affords the quickest, easiest and most practical method of teaching the code that has yet been developed. The Instructograph is a scientific machine that sends telegraphic characters perfectly at any desired speed. By so doing it literally takes the place of an operator-instructor, and enables anyone to learn either the Morse or Continental codes without any further assistance.
It teaches you to receive telegraph symbols, words and messages. It teaches you to send perfectly. It increases your speed of sending and receiving after you have learned the code. Comes in an attractive case complete with five tapes and the book of instructions. Net Each.. **$21.25**
Additional tapes are available at **$1.00** ea.

LYSCO COMMUNICATIONS EQUIPMENT



LYSCO FIXED TRANSMASTERS

Single band switch, Xtal In or Out switch, Power switch, Oscillator Tuning and PA Tuning. Series Tuned Colpitts, Xtal or VFO. Temp. compensated. 6AG7 osc., 6AG7 buffer, 807 Amp., 5U4G rect. Power In: 35 watts. Output: low Imp. 50 ohm line. Modulation: Screen and plate at terminals. 115 v., 60 cps. 17" x 9" x 11".

Lysco Model 600—TVI Suppressed—Net Each.....**$143.95**
Lysco Model 500—Standard model—Net Each..... **131.95**
Above models, rack mounted, same prices.

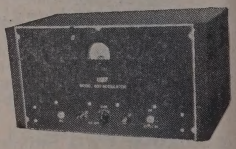
LYSCO MOBILE TRANSMASTERS

Power Req.: Ep. 500 v.; Ip, 100 ma.; Models A & B, 6.3 v; Model C,12.6 v. Controls: Osc. Plate Tuning on 114 and 129 only; Power Amp. Tuning, all units; Filament switch. Ant. changeover relay. Coax connectors for 50 ohm line. Mike jack. 4½" x 4" x 6". Weight 5 lbs. Black wrinkle steel.

Ly. No.	Band	Tubes	Ly. No.	Band	Tubes
A114T	20	3-6AQ5	B175T	75	3-6V6GT
B114T	20	3-6V6GT	A140T	2374 kc	3-6AQ5
A129T	10–11	3-6AQ5	B140T	2374 kc	3-6V6GT
B129T	10–11	3-6V6GT	C140T	2374 kc	3-12A6
A175T	75	3-6AQ5			

Any model above except **C140T**, Net Each..... **$33.55**
Lysco Model C140T—Net Each..... **$34.30**
Any above, less tubes—Net Each..... **29.95**

LYSCO MODULATOR MODEL 400



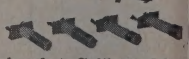
Sufficient audio to modulate 100 watts, 4000 ohms. Hi-Z input for Xtal or dyn. mike. Tubes: 1-6SJ7; 2-6SN7; 2-6L6G; 1-5U4G. Controls: Audio Gain, Power Switch, Standby Switch with spare contacts. Modulator Plate meter on panel. 115 v., 60 cps. 17" x 9" x 11". Steel, black wrinkle finish.

Lysco Model 400 Modulator. Net Each..... **$119.95**
Lysco Model 400L—Above with 500 ohms out. imp. Net Each.....**$119.95**

LYSCO DIPMASTER

Grid dip meter. Range 3.4 to 160 mc. Absorption wave meter. Phone monitor. Signal generator, Range 3.4 to 300 mc. Field Strength meter. Plug-in coils. Tube: 955. Power Req.: 15 watts, 115 volts AC/DC. Dimensions 3" x 9" x 3½".
Lysco Model D-11— Net Each..... **$39.95**

MINIATURE VFO'S

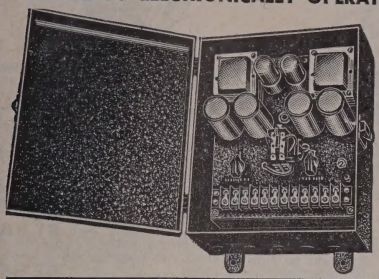


Mobile or fixed. Hi-Z 14" ribbon lead with plug or Xtal socket. Calibrated for 80, 40, 20, 10 meters. Output on 80 or 40 meters. Tubes: 3-6AK5, 6.3 v, AC-DC, 1.35 amps. 200 VDC max., 90 ma. 4" x 4¾" x 5".
Lysco Model VFO-382—Net.....**$34.95**

658X-55A

Worner "Fotolectric" *Equipment*

MODEL 63 ELECTRONICALLY OPERATED RELAYS



Use with Photo-cell and Exciter Lamps below. Operate also from daylight, artificial lights or radiant energy. Highest quality unit, enjoys wide preference. Meets exacting requirements and replaces need of costly gear. Details on request.

Model	Electronically Operated Relays	Net
63	Described above	$86.25
63-A	Combines Model 63 with Time Delay Circuit, giving delay from 0 to 45 seconds	112.50
63-B	Same as Model 63 with additional amplification to operate on less active light change	112.50

EXCITER LAMP AND PHOTO-CELL RECEIVER UNITS

For Use With Models 63, 63-A and 63-B Electronically Operated Relays

Model 33

Model 23

Model 31

Model 21

The Exciter Lamp unit is designed to protect the light beam and the Photo-Cell Receiver is designed to pick up the beam and convert its light into electrical energy through the Electronically Operated Relay unit.

Model 33 Exciter Lamp is "standard" for general applications. Its light beam covers a distance from a few inches to 25 feet from Lamp to Photo-Cell. Heavy cast iron unit with ½-inch conduit fittings. Gray finish.

Model 23 Photo-Cell Receiver is engineered for use with Model 33 Exciter Lamp and has the same case specifications.

Above set can be made water-proof at slight additional cost.

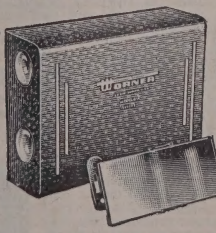
Model 31 Light Source is "standard" where a lighter weight case is practical. Its light beam covers a distance from a few inches to 25 feet from Lamp to Photo-Cell. Case is 18 gauge steel, gray wrinkle finish. Has ½-inch knockout.

Model 21 Photo-Cell Receiver is engineered for use with Model 31 Exciter Lamp and has the same case specifications.

Model	Description	Size, Inches	Net
33	Exciter Lamp	4¼x2¾x2¾	$12.00
23	Photo-Cell Receiver	4¼x2¾x2¾	16.20
31	Exciter Lamp	6⅝x2 x1¾	9.30
21	Photo-Cell Receiver	6⅝x2 x1¾	14.25

FOTOLECTRIC ANNOUNCER SET

Unit, Mirror and Chime

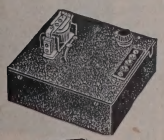


Projects a "beam of light" across the entrance, room, or building. Breaking of light beam by person entering activates the chime to automatically announce the entrant. Unit combines Exciter Lamp and Photo-Cell in gray hammerloid case, 8¼" x 6½" x 2¾".

Model 61—Fotolectric Announcer with chime only. Net Each..... $26.10

FOTOLECTRIC KITS

For Experimental Work

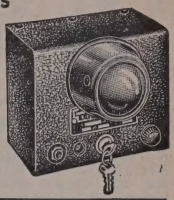


Model 69 Electronically Operated Relay with Photo-Cell Kit. Will operate on any source of light that will provide a change of light density to the photo-cell to actuate the relay. Relay is rated 1 ampere, 110 volt A. C., non-inductive. Net Each..... $12.90

Model 39 Exciter Lamp Kit—Equipped with a special 50 watt bulb in a well designed optical system to project a diffused beam 25 feet. Has cord and plug. Ideal for use in connection with Model 69 Electronically Operated Relay. Easy to handle. Net Each..... $8.10

FOTOLECTRIC BURGLAR ALARM SYSTEMS

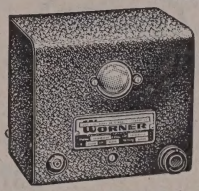
MODEL 5000 SERIES



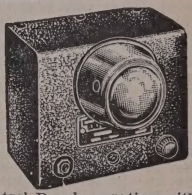
Consists of Exciter Lamp and Electronically Operated Relay. Designed for interior use where a single beam is ample protection; not intended for use with protective devices such as foil systems, etc. Furnished for 110 volts. Electronically operated relay (illustrated) has "unwanted light rejector" which increases the daylight range of the unit and makes it equal to the night-time range. If installed so that 90 per cent of the light reaching the Photo-cell is that generated by the Exciter Lamp.

Model	Description	Range	Net Each
5100	Single Beam Trespass Trap	100 Feet	$70.50
5150	Single Beam Trespass Trap	150 Feet	85.50

MODEL 9000 SERIES



Model 9100-R



Model 9150-R

This series consists of One Master Control Panel operating with one or more (up to 4) Fotolectric Exciter Lamp and Electronically Operated Relay Sets. The combination may be used with traps, foil systems and other equipment as used by professional burglar alarm companies, to operate audible or visible alarms.

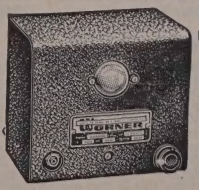
Any interruption of the light beam operates whatever alarms the user wishes to install. The complete alarm circuit is supervised by the Master Control Panel which is remotely located for operator's convenience.

All Model 9000 series Electronically Operated Relays contain heavy-duty transformers 110-120 volt, 50 to 60 cycle, A. C. with dual secondary. Potentiometer type sensitivity control. Meter Jack to determine correct cut-off and plate current in Relay circuit. Electrolytic condensers. Double pole, double throw 5-amp. relay. Constructed of 18-gauge steel, welded, gray wrinkle finish. Size: 7 x 6¼ x 4¼ inches. (Not weatherproof.)

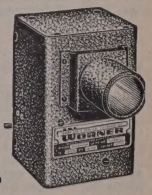
Model	Description	Range	Net Each
9100	Master Trespass Trap	100 Feet	$66.00
9150	Master Trespass Trap	150 Feet	81.00
9250	Master Trespass Trap	250 Feet	108.75
9500	Master Trespass Trap	500 Feet	146.00

Model 9000-R Control Panel. Supplied with plate relays equal to the 9000 series Electronically Operated Relays ordered. If 9000 series Relays are ordered without Control Panel plate, relay is supplied with Electronically Operated Relays to be mounted in Control Panel. Has control circuit which protects operation in the event of false alarm should power drop five volts or more. Net Each... $55.50

ELECTRONICALLY OPERATED RELAY AND EXCITER LAMP SET



Model 62-R Electronically Operated Relay



Model 62-L Exciter Lamp

"Two-Unit" Set has Exciter Lamp and an Electronically Operated Relay that includes the Photo-Cell Receiver, Relay and other electrical controls. Efficient for distances from a few inches to 75 feet or where Relay is not required to operate in excess of 300 times a minute. Efficient on simple applications such as counting or sorting large objects, limit switches, start and stop operations light density, fire protection, flame control, opening doors, etc.

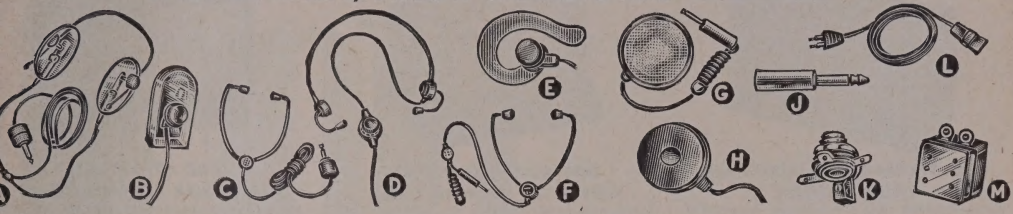
Model 62-R & L—"Two-Unit" Set—Per Set.....Net $63.75
Model 62-R—Electronically Operated Relay only.Net 52.31
Model 62-L—Exciter Lamp only.....Net 16.31

WE CAN SUPPLY ALL WORNER EQUIPMENT. WRITE FOR COMPLETE CATALOG.

380-55A

Headsets and Telephones

TELEX HEADSETS, PILLOW SPEAKERS AND EQUIPMENT



NEW TELE-SET (FIG. A)

ver-the-head style, weighs 1.6 ounces, fully adjustable. Tiny, ainless steel headband, two thin plexiglass air cushions. Receiver cated in plug, sound piped thru hollow tubing to cushions. Ball nd swivel joint permit perfect adjustment to ear. Will not slip r pinch.
elex No. 8825 (128 ohms) or **9316** (2000 ohms) Net Ea.. **$8.70**

NEW TELA-EAR (FIG. B)

lips over ear. Light, sanitary, crystal-clear sound shield transmits ound directly into ear without touching it with a button receiver. ingle-cord connection, excellent sensitivity. Weighs less than one unce. Comfortable listening level at 50 microwatts, maximum put, 25 milliwatts. **$7.50**
elex No. 8560 (128 ohms) or **8561** (2000 ohms)—Net Each
nit Only, **No. 9330** (128 ohms); **9331** (2000 ohms)—Net. **$5.34**
eceiver Only, **No. 4677** (128 ohms); **4698** (2000 ohms) Net **4.14**
o. **4315 Earmuff**—Net Each..... **1.20**

DYNASET (FIG. C)

ynamic under-the-chin headphone covers speech and music and excellent for telecasting and radio monitoring. Anodized alumnum tone arms. Sound conducted thru long life flexible tubing. Veighs 1.25 ounces. Sensitivity 105 db above .000204 dynes/cm² r one milliwatt power input. Impedance 6, 2000, 10,000, 50,000 hms. Exchangeable ear tips.
elex No. 6701 Dynaset—Net Each..... **$8.85**
elex No. 6710 Eartips—Net Each..... **9c**

TWINSET (FIG. D)

ightest (1.6 ounces) twin magnetic-receiver headset ever made. Has CAA approval. Plastic ear tips adjustable to fit ear opening nugly. Single cord. Rugged nickel and tenite construction, may be olled up and stuffed into pocket. Fully adjustable to any head. ensitivity 101 db above .000204 dynes/cm² for 10 microwatts nput. With 5 ft. cord, standard phone plug. **$10.14**
elex No. 3791—64 ohms impedance. Net Each..... **$10.14**
elex No. 3775—1000 ohms, for Pilot use
CAATC 3R2-1). Net Each..... **$10.14**
nit Only, **No. 3781** (64 ohms); **3776** (1000 ohms). Net... **8.04**
elex No. 3756—Twinset eartips. Net Each..... **9c**

EARSET (FIG. E)

high fidelity earphone that slips onto the ear. Weighs only ½ ounce. Uses sealed, rust-proof receiver. With 5′ cord, standard hone plug. Comfortable listening at 3 mw. **$6.78**
elex No. 4670 (128 ohms) or **4680** (2000 ohms)—Net Ea.
nit Only, **No. 4650** (128 ohms) or **4660** (2000 ohms). Net. **$4.68**
eceiver Only, **No. 4651** (128 ohms); **4661** (2000 ohms). Net **4.14**
elex No. 4652—Plastic earframe only. Net Each..... **48c**

MONOSET (FIG. F)

Dependable and superior performance. Stethoscope design. Sends ignals directly into ear, blocking out background noise. Choice of standard cord or with built-in volume control. Sensitivity 88 db above .000204 dynes/cm² for 10 microwatts input. Weighs 1.2 ounce. Sealed magnetic receiver, removable plastic eartips, 5′ tinsel cord with standard phone plug.
Telex No. 4600 (128 ohms); **4610** (500 ohms); **$7.50**
4625 (2000 ohms). Net Each..... **$10.26**
Above unit, with 5′ Volume Control cord with standard phone plug, available in any of above impedances. Net.
Unit Only, no cord. Any impedance listed above, Net.... **$5.40**

NEW DYNAMIC PILLOW SPEAKER (FIG. G)

Mellow and smooth tonal quality. Durable stainless steel housing, shock-absorbing polyethylene ring around edge. 3¾″ diam., 1⅛″ thick, weight 4 oz. without cord. Comfortable listening level with 1 mw. input to speaker. Maximum power level, ½ watt. With 5′ cord and standard phone plug. **$6.12**
Telex Model 54 (No. 8110)—3.2 ohms. Net Each..... **$6.12**
Telex Model 55 (No. 8130)—10,000 ohms. Net Each.... **$7.26**

RADIO PILLOW SPEAKER MODEL "R" (FIG. H)

Palm-sized, weighs only 1.1 oz., easily sterilized in alcohol. Completely shock-proof. Detachable flexible cord. Sensitivity 1 mw. for comfortable listening. Freq. range 50-4000 cps. 11/16″ thick, 2¼″ diameter. With 5′ cord and plug. **$6.42**
Telex No. 4500 (128 ohms) or **4530** (2000 ohms). Net Ea.
Unit Only, **No. 4501** (128 ohms) or **4531** (2000 ohms). Net **$4.32**

SUBMINIATURE JACK AND PLUG COMBINATION (FIGS. J AND K)

Closed circuit combination, just ⅓ the size of previous models. Overall length of straight plug, 1⅛″ x ¼″ in diameter, can be used with all miniature cordage. Jack can be mounted on any panel up to ⅛″ thickness.
Telex No. 9210—Miniature straight plug. Net Each..... **36c**
Telex No. 8570—Closed circuit panel mounted jack. Net.... **24c**
Telex No. 9220—Closed circuit chassis mounted jack. Net.. **36c**
Telex No. 9240—Open circuit panel mounted jack. Net..... **36c**
Telex No. 9250—Open circuit chassis mounted jack. Net.... **36c**

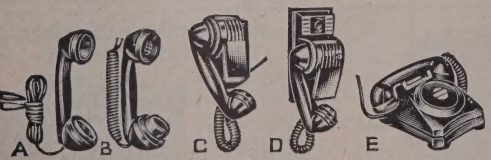
FIVE-FOOT EXTENSION CORD (FIG. L)

Just snap this extension cord to the standard Telex 5′ cord. Neutral gray color to match standard Telex cords. **$2.10**
Telex No. 8555—Net Each..... **$2.10**

"MINI-MIKE" MODEL 100 (FIG. M)

New speaker-microphone houses a dynamic speaker and Telex microphone in a case only 1″ x 1″ x ¾″. Miniature external transformer available for matching to grid circuits. Sensitivity 52 db below 1 volt/dyne/cm² with matching transformer. Sensitivity of speaker, 124 db with 10 mw. power input. Impedance, 10 ohms. Weighs approximately 1⅓ oz. **$3.60**
Telex Model 100 "Mini-Mike" (No. 9155)—Net Each... **$3.60**
Telex No. 8918 Matching Transformer—Net Each..... **$2.28**

WHEELER SOUND-POWERED TELEPHONES



FEATURES OF THESE SYSTEMS

No batteries; no external power source; no rust or corrosion; no ire or shock hazard; no maintenance costs. Clear, sharp bell ignal. Fidelity of speech is outstanding. No frying or rattling ounds. Made of impact-resistant plastic parts. High quality witch contacts; alnico permanent magnets; moisture resistant; etractible cord.

FIG. A—MODEL SPT-102 TELEPHONE HANDSET

Operates over twisted pair cable or single wire, ground return ircuit. Connect as many as 12 units in parallel. Complete with ½-ft. cable and test clips. Shipping Weight 1½ lbs. **$9.62**
Net Each..... **$9.62**

FIG. B—MODEL SPT-123 HI-LEVEL HANDSET

Extra-sensitive for use in areas of high background noise. Also ses two-conductor twisted pair cable. Net Each..... **$10.78**

MODEL SPS-305 HANDSET HOLDER ONLY

See Fig. C). Mounts on wall and includes switch hook and erminal board. For use with SP-102 and SPT-123 hand- **$9.74**
ets. 2⅞″ x 5⅛″ x 3″. Shipping Weight, 1½ lbs. Net Each.
Model F-4182 Holder—Same as above, except includes bell. Has ever-operated built-in generator to ring bell at other end of line. Use up to 3 in common ringing system. Shipping Weight, 1½ lbs.
Net Each..... **$11.69**

FIG. C—MODEL SPS-205 TWO-PHONE SYSTEM

Includes two telephone instruments, each has lever-operated generator for ringing other station. Uses twisted pair wire. Neoprene-sheathed "Koiled Kord". Shipping Weight **$43.89**
7 lbs. System, Net..... **$43.89**
Model SPS-205-3—Same features, 3 stations. Shipping Weight, 10 lbs. Net..... **$65.83**

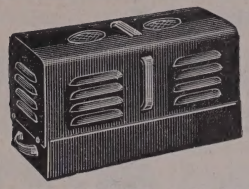
FIG. D—MASTER PHONE SYSTEMS

Selective ringing, common talking systems, composed of SP-205-MI Masters only or with SPS-205-SI Sub-stations. All-Master system components can communicate with any other master, or up to 6 Masters may be used for a conference. In Master-Sub-station systems, the Master can communicate with any Sub-station, Subs can call the Master and can speak to each other by having the Master call another Sub-station for them. Up to 6 stations may be used on a conference basis. **Cable Requirements:** 2 common wires and 1 additional wire for each station, between each station; Master-Sub system, 3 common wires and 1 wire from each Sub to Master.
Model SPS-205-MI Master Station— **$36.96**
Shipping Weight, 5 lbs. Net..... **$36.96**
Model SPS-205-SI Sub-Station—Shpg. Wt., 5 lbs. Net. **$31.35**

FIG. E.—MODEL SPS-405 EXECUTIVE-TYPE PHONE SYSTEM

Particularly suited to desk applications as a part of a system which includes wall mounting units as well. (Office to stockroom, etc.) Quality black plastic case encloses generator, ringer and handset. Uses 2-conductor twisted-pair cable. Complete with 8′ 2″, 2-conductor cable and 3 point terminal board with cover. Consists of two "Executive" cradle-type phones. Shipping Weight **$55.80**
7½ lbs. System, Net..... **$55.80**
Model SPS-205, SPS-405—Consists of one SPS-205 wall mounting and one SPS-405 cradle-type phone. Per system, Net. **$49.85**

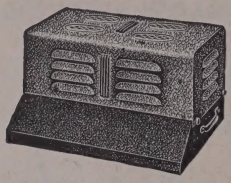
Chassis and Cabinets by BUD



BUD STREAMLINED AMPLIFIER FOUNDATIONS

An attractive unit for housing amplifiers and similar apparatus. Each foundation consists of a standard chassis on which is mounted a removable top cover. Chromium trim and handles with louvred sides and ends. All chassis are 3" high and complete units are 9" high. Easy grip handles are attached to chassis except CA-1750 which is placed on top. Finished in Black or Grey Wrinkle Enamel. Specify color when ordering.

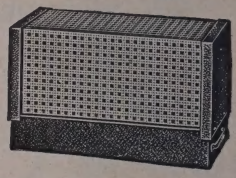
Bud No.	Width	Depth	Wt. Lbs.	Net Each
CA-1750	10 1/16"	5"	6	$3.90
CA-1751	12 1/16"	7"	7	5.06
CA-1752	17 1/16"	7"	10	5.50
CA-1753	17 1/16"	10"	11	6.33



BUD SLOPING PANEL AMPLIFIER FOUNDATIONS

Each unit consists of a 4" sloping front chassis on which is mounted a removable top cover. Cover is finished in Grey Wrinkle Enamel with Chromium trim, chassis in Black Wrinkle. All chassis are 3½" high and all units are 9½" overall height. Handles are attached to chassis on all except CA-1980 which is mounted on top of cover. Grilled cutouts and louvres in top cover provide adequate ventilation.

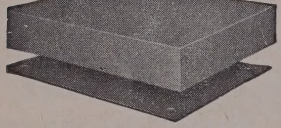
Bud No.	Top-Chassis Dp., Lg., Dp. Inches	Wt. Lbs.	Net Each
CA-1980	5 x 10 x 8	6	$5.60
CA-1981	7 x 12 x 10	8	6.53
CA-1982	7 x 17 x 10	10	7.56
CA-1983	10 x 17 x 13	12	8.25



BUD STANDARD AMPLIFIER FOUNDATIONS

Attractive, economical units for all types of amplifiers. Entire cover is perforated to provide maximum ventilation. Chassis have easy grip handles attached. Numbers CA-699, CA-1125, and CA-1126 are 8 1/16" high with 2½" high chassis. Numbers CA-1127, and CA-1128 are 8 11/16" high with 3" high chassis. All units are finished in Black Wrinkle Enamel.

Bud No.	Width	Depth	Wt. Lbs.	Net Each
CA-699	9⅝"	5⅛"	4	$3.85
CA-1125	13⅝"	5⅛"	5	4.25
CA-1126	17⅛"	7⅛"	7	5.50
CA-1127	17⅛"	10⅛"	10	7.15
CA-1128	12⅛"	10⅛"	8	6.05



BUD HEAVY DUTY CHASSIS

(Complete With Bottom Plates

Ruggedly constructed of heavy gauge steel these bases are particularly suited for heavy power supplies, modulator units and all applications requiring unusual sturdiness or where large weights are involved. Available in either Black Wrinkle Enamel Finish or Electro-Zinc Plate. All chassis are 17" wide. Prices shown below are for Zinc Plated chassis. Deduct 5% for Black Wrinkle.

Black Wrinkle Bud No.	Zinc Plated Bud No.	Dpth. Ht. In.	Wt. Lbs.	Net Each
CB-1757	CB-1764	8x2	9	$2.90
CB-1758	CB-1765	8x3	10	3.15
CB-1759	CB-1766	11x2	11	3.30
CB-1760	CB-1767	11x3	12	3.65
CB-1761	CB-1768	13x2	13	4.00
CB-1762	CB-1769	13x3	14	4.40
CB-1763	CB-1770	13x4	15	4.84

BUD STEEL CHASSIS BASES

Made from one piece of steel all corners are reinforced and spot welded. Sides are folded on bottom for extra strength and rigidity, also permitting a bottom plate to be attached if desired. Additional sizes and bottom plates are also available. Write for complete Bud catalog.

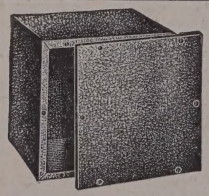
Black Wrin. Bud No.	Zinc Plated Bud No.	Dimen.* Inches	Wt. Lbs.	Net Each
CB-788	CB-776	5x9½x1½	1½	$0.80
CB-789	CB-1191	7x7x2	1¾	.90
CB-790	CB-1192	7x9x2	2¼	1.05
CB-791	CB-1193	7x11x2	2½	1.10
CB-792	CB-793	7x12x3	2¾	1.25
CB-646	CB-1194	7x13x2	3	1.20
CB-648	CB-1199	7x17x2½	3½	1.55
CB-652	CB-1195	10x12x3	3½	1.50
CB-653	CB-779	10x14x3	4	1.60
CB-636	CB-637	10x17x3	4½	1.60
CB-656	CB-1197	10x23x3	6	2.44
CB-660	CB-773	13x17x3	6	2.55

*Dimen. shown—Depth, Width, Height

BUD ALUMINUM CHASSIS

Construction and design of these chassis is exactly the same as the steel units. Welded on the same type of spot welders used in fabrication of aluminum airplane parts. These excellently made bases are constructed to withstand heavy-duty service while being much easier to drill and cut than steel and having the added advantage of lighter weight. Etched Aluminum finish.

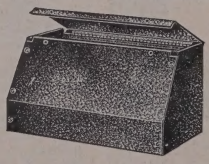
Bud No.	Dimensions Dp.-Wd.-Ht.	Wt. Ozs.	Net Each
AC-403	5" x 9½" x 2"	11	$0.99
AC-404	5" x 10" x 3"	15	1.20
AC-405	7" x 7" x 2"	10	.99
AC-406	7" x 9" x 2"	12	1.08
AC-408	7" x 12" x 3"	20	1.41
AC-409	7" x 13" x 2"	16	1.26
AC-412	8" x 17" x 3"	28	2.22
AC-413	10" x 12" x 3"	24	1.89
AC-416	10" x 17" x 3"	30	2.58
AC-418	12" x 17" x 3"	34	3.18
AC-419	13" x 17" x 2"	28	2.82
AC-420	13" x 17" x 3"	36	3.36



BUD METAL UTILITY CABINETS

Designed to house a large variety of electronic equipment such as mixers, monitors, input stages, frequency meters, etc. Front and back are removable for easy accessibility. Ten sizes adaptable for all requirements. Black Wrinkle Enamel finish.

Bud No.	Dimensions Dp.-Wd.-Ht.	Wt. Lbs.	Net Each
CU-883	2" x 4" x 4"	1¼	$0.85
CU-728	3" x 5" x 4"	1½	.95
CU-729	4" x 5" x 6"	2	1.20
CU-1098	6" x 6" x 6"	3	1.30
CU-1099	5" x 6" x 9"	4	1.86
CU-879	7" x 8" x 10"	5	2.30
CU-1124	6" x 7" x 12"	5	2.46
CU-880	8" x 10" x 10"	7	2.90
CU-881	8" x 11" x 12"	8	3.60
CU-882	7" x 9" x 15"	10	4.10

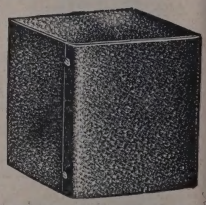


BUD SLOPING PANEL CABINETS

Constructed with removable front panel allowing chassis to be attached to form one piece unit. Provided with hinged top for easy accessibility to tubes or other parts mounted on chassis. Ideal for test equipment, ham gear, etc. Black Wrinkle Enamel finish. Complete with bottom plate but less chassis.

Bud No.	Dimensions Ht., Wd., Dp. Inches	Wt. Lbs.	Net Each
C-1584	6½x7 1/16x7¼	4	$3.15
C-1585	6½x9 1/16x7¼	5	3.58
C-1586	6½x11 1/16x7¼	5	3.96
C-1892	8x13 1/16x8½	9	4.75
C-1893	10x18 5/16x10½	14	6.66

BUD STREAMLINED SCOPE AND UTILITY CABINETS

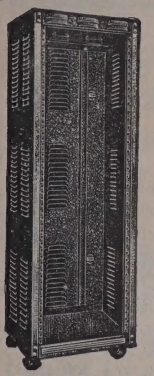


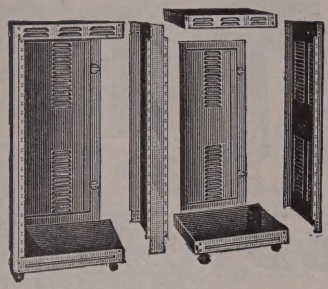
Prices shown below include chassis. The chassis height on all except CU-1991 and CU-1992 is 1½". CU-1991 is designed for 3" cathode ray tube and has a hinged cover to provide easy access to tube or other components. Chassis height is 2". CU-1992 is designed for a 5" cathode ray tube and also has a hinged cover. Chassis height 3".

Bud No.	Wid.	Dph.	Hght.	Net Each
CU-1990	5½"	8¼"	8"	$3.50
CU-1984	7½"	8¼"	8"	3.52
CU-1985	9½"	8¼"	8"	3.92
CU-1986	11½"	8¼"	8"	4.30
CU-1987	13½"	8¼"	8"	5.00
CU-1988	15⅛"	8¼"	8"	5.50
CU-1989	17⅛"	8¼"	8"	6.25
CU-1991	7½"	13"	8"	6.00
CU-1992	9½"	19"	12"	8.00

Relay Racks and Panels by BUD

BUD DELUXE RELAY RACKS WITH ADD-A-RACK





High duality relay racks made of 16-gauge steel with 1/8" panel supports. Panel mounting supports are recessed so that no panel edges will be exposed. Front, back, sides and top fully louvered for best ventilation. Snap catches are positioned on the door. Rounded corners and red-lined chrome trim give streamlined appearance. Base constructed with four special supports so that casters may be applied directly to base. Order casters below. All standard 19. panels will fit these racks. The **Super DeLuxe Series** are equipped with adjustable panel mounting supports permitting forward and backward adjustment of panels for more efficient use of space. Adjustable points are at 1" intervals up to a point 6" behind the front panel. **Super DeLuxe** are fitted with both front and rear doors, the rear to cover any equipment behind the panel while making it easily accessible. The front door conceals controls on the front panel. The **Double Rack Series** contains parts for two DeLuxe Series Relay Racks coupled together. The **Add-a-Rack Series** include (1) a door, (2) a top, (3) a bottom and (4) an Add-a-Rack Coupling unit, all that is needed to make a double relay rack out of a single DeLuxe Series Relay Rack. All racks listed are shipped knocked down with all hardware and complete instructions for easy assembly. They all come in a choice of black or gray wrinkle finish or in gray hammertone finish. To order black, add suffix "B" to catalog number; for gray wrinkle add "G", and for hammertone add "HG" to number.

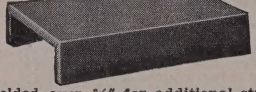
Overall Height In.	Panel Space In.	DeLuxe Relay Rack Bud No.	Wt. Lbs.	Net Each	Add-a-Rack Series Bud No.	Wt. Lbs.	Net Each	Double Rack Series Bud No.	Wt. Lbs.	Net Each	Super DeLuxe Series Bud No.	Wt. Lbs.	Net Each
42 1/16	36 3/4	CR-1774	90	$32.70	AR-1778	75	$31.00	CR-1779	165	$63.70	CR-2174	108	$44.50
47 5/16	42	CR-1771	100	37.45	AR-1775	77	36.00	CR-1780	185	73.45	CR-2171	117	51.00
66 9/16	61 1/4	CR-1772	135	48.60	AR-1776	100	45.00	CR-1786	222	93.60	CR-2172	146	65.10
82 5/16	77	CR-1773	155	58.50	AR-1777	127	55.00	CR-1799	277	113.50	CR-2173	191	78.95

Bud Truck Casters—Fit relay racks above. See illustration at left. RC-7757 are for light weight installations; RC7756 are for heavy duty installations where up to 400 lbs. weight is to be distributed over 4 casters. High grade hard rubber composition. Ball bearings.
RC-7756—2 5/8 in. diameter. Net Each.....**90c** **RC-7757**—2 in. diameter. Net Each.....**40c**

BUD SLIDING DRAWER ASSEMBLY

Installs in any standard rack; can't fall out, can't tilt. Slides easily on ball bearing suspension. Ideal mounting for record player, base for typewriter or writing table. Supports up to 50 lbs. 16 1/2" x 14" x 3" electro-welded steel with gold color finish. Punched with 4 mounting holes.
SD-1717—Sliding Drawer Assembly. Net Each..... **$10.65**
TP-1718—Aluminum Drawer Plate. Attaches to bottom of chassis of drawer assembly to form drawer. 16 3/4" x 14". Net Each **$2.19**

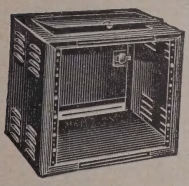
BUD OPEN-END CHASSIS



Primarily intended to be used with the various sizes and styles of Bud metal cabinets, these chassis are ideal for any type of small built-up unit such as a record amplifier, code oscillator, etc. U-shaped construction is used with ends folded over 3/8" for additional strength. Finish is Electro-Zinc Plating.

Bud No.	Depth	Width	Height	Fits Cabinet No.	Net Each
CB-38	7"	6"	2"	C-1584	$0.66
CB-30	5"	7"	1 1/2"	.....	.60
CB-41	7"	7"	1 1/2"	C-973	.75
CB-39	7"	8"	2"	C-1585	.84
CB-996	5 1/2"	9"	1 1/2"	C-993	.70
CB-976	7 1/2"	9"	1 1/2"	C-999, C-1746	.95
CB-40	7"	10"	2"	C-1586	.90
CB-997	7"	11"	1 1/2"	C-994, C-1747	1.00
CB-998	7"	13"	1 1/2"	C-995, C-1748	1.16
CB-34	10 3/4"	14"	2"	C-975A	1.44
CB-35	7 3/4"	15"	2"	C-1190A	1.38

BUD DE LUXE CABINET RACKS

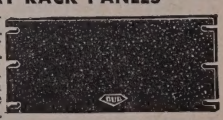


These cabinet racks have rounded corners and attractive red-lin d chrome trim. There is a recessed, hinged door on the top with a snap catch. These racks are made of heavy gauge steel and are of sturdy construction. The five large sizes have a hinged rear door, while the small sizes have a welded panel in the rear. Adequate ventilation is assured by means of louvered sides and a two inch opening in the bottom of the back extends the entire width. "NO-SCRATCH" EXTENDED METAL FEET ARE EMBOSSED ON THE BOTTOM TO MINIMIZE MARRING OF A TABLE TOP. Racks are furnished in either black or grey wrinkle finish. Depth 14 3/4", width 22". Will fit standard 19" panels.

Bud No.	Overall Height	Panel Space	Shipping Weight	Net Each
CR-1741	10 3/16"	8 3/4"	29 lbs.	$12.00
CR-1740	12 5/16"	10 1/2"	31 lbs.	13.70
CR-1742	14 1/16"	12 1/4"	32 lbs.	14.55
CR-1739	15 13/16"	14"	36 lbs.	16.20
CR-1743	19 5/16"	17 1/2"	40 lbs.	19.20
CR-1727	22 13/16"	21"	45 lbs.	20.83
CR-1744	28 5/16"	26 1/4"	50 lbs.	22.50
CR-1728	33 5/16"	31 1/2"	55 lbs.	24.00
CR-1745	36 13/16"	35"	60 lbs.	24.90

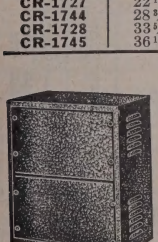
BUD STANDARD RELAY RACK PANELS

Choice of steel or aluminum relay rack panels. Both steel and aluminum are 1/8" thick. All panels are 19" wide. Furnished in either black or gray wrinkle finish; state choice. Aluminum panels are available in 3/16" thickness also at 60% increase over the 1/8" aluminum panel price.



STEEL Bud No.	Height, In.	Net Each	ALUMINUM Bud No.	Height, In.	Net Each
PS-1250	1 3/4	$0.66	PA-1101	1 3/4	$0.75
PS-1251	3 1/2	.75	PA-1102	3 1/2	1.08
PS-1252	5 1/4	.93	PA-1103	5 1/4	1.38
PS-1253	7	1.08	PA-1104	7	1.80
PS-1254	8 3/4	1.30	PA-1105	8 3/4	2.10
PS-1255	10 1/2	1.55	PA-1106	10 1/2	2.49
PS-1256	12 1/4	1.85	PA-1107	12 1/4	2.85
PS-1257	14	2.15	PA-1108	14	3.18
PS-1258	15 3/4	2.45	PA-1109	15 3/4	3.60
PS-1259	17 1/2	2.70	PA-1110	17 1/2	3.99
PS-1260	19 1/4	3.00	PA-1111	19 1/4	4.35
PS-1261	21	3.30	PA-1112	21	4.65

BUD JUNIOR CABINET RACKS



This cabinet rack is a multi-purpose unit that is inexpensive. The cabinet is constructed to accommodate two panels. One is 10 1/2" x 18 5/16", the other 8 3/4" x 18 5/16". These panels are supplied with the cabinet. The BUD Junior Cabinet Rack is spacious enough to accommodate a chassis up to 10" x 17". The rear is covered by a hinged door with a locking device. Black wrinkle finish.

Bud No.	Overall Ht. x Dp. x Wd.	Net Each
RC-1749A	21 1/4" x 10 1/2" x 19 7/8"	$15.95

BUD CHASSIS MOUNTING BRACKETS

Mounts chassis to panels, essential when panel supports entire chassis weight. Heavy grade steel. Cut away at bottom so that chassis can be mounted flush to panel. Black enamel finish.

Bud No.	Ht.	Depth	Wt. Lbs.	Net Per Pr.
MB-458	6 1/2"	8"	2	$0.85
MB-448	6 1/2"	10"	3	1.10
MB-459	6 1/2"	11"	3	1.20
MB-449	6 1/2"	12"	3	1.45
MB-460	6 1/2"	13"	3	1.35
MB-450*	8 1/2"	10"	4	1.60
MB-451*	8 1/2"	13"	5	1.70

*Designed for chassis height of 4".

BUD TRIANGULAR MOUNTING BRACKETS

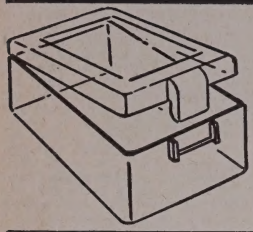
For panel and chassis assemblies where large weights are to be supported. Heavy gauge steel with black enamel finish.

Bud No.	Height Inches	Depth Inches	Actual Wt. Lbs.	Net Per Pair
MB-1266	5	5	1	$0.80
MB-1267	7	7	1	.91
MB-1268	9	9	1 1/2	1.10

117-54A

G-C 50 LINE Electronic HARDWARE G-C 50 LINE

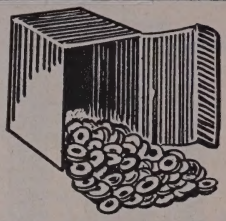
The Hinged Cover Line



G-C 50-LINE PLASTIC BOXES

Supplied in the Hinged Cover Plastic Box as pictured.

Order by part number
Net Price per Box.... 30c



G-C GROSS PACKAGES

Stock gross packages for economy in ordering.

Add suffix "-G" to part numbers to get gross package.

Gross prices indicated below.

Fig. No.	G-C No.	Description	"50" Qty.	Net Price Per Gross
		PHONO MOTOR AND RADIO DIAL DRIVES		
1	H014-F	3 Speed Recorder Drive	4	.....
1	H014-JF	V-M 1/8" Wide Drive	2	.....
1	H016-F	2 11/64" O.D. x 1 31/64" I.D. x 5/64" (G. I.)	2	.....
1	H017-F	Popular, Alliance, G. I., Etc.	3	.....
1	H018-F	RCA, etc. (1 3/64" x 27/64" x 3/16" wide)	4	.....
1	H019-F	Philco, R.C.A. 3/8" x 1/8" x 1/4" wide)	4	.....
1	H020-F	Large Detrola Rubber Drive	1	.....
2	H026-F	Asst. Large Dial Drives	5	.....
2	H027-F	Asst. Small Dial Drives	5	.....
		RUBBER GROMMETS		
3	H025-F	Rubber Grommets, asst.	15	.....
3	H030-F	1/8" I.D. x 1/4" Mtg. Hole	15	$1.65
3	H032-F	3/16" I.D. x 5/16" Mtg. Hole	14	1.65
3	H034-F	1/4" I.D. x 3/8" Mtg. Hole	12	1.89
3	H036-F	3/8" I.D. x 1/2" Mtg. Hole	10	2.19
3	H038-F	1/2" I.D. x 5/8" Mtg. Hole	8	.....
3	H040-F	Gum Rubber Grommets Asst.	12	2.07
3	H042-F	Gum 3/16" I.D. x 5/16" Mtg. Hole	12	2.28
3	H043-F	Gum 1/4" I.D. x 3/8" Mtg. Hole	10	5.85
		CORD STRAIN RELIEFS		
4	H048-F	Cord Strain Reliefs	5	5.85
		RUBBER AND FELT FEET AND BUMPERS		
5	H050-F	Rubber Feet-Screw Type, Asst.	8	.....
5	H052-F	Rubber Feet, 3/8" O.D.	8	1.14
5	H054-F	Rubber Feet, 1/2" O.D.	8	1.74
5	H056-F	Rubber Feet, 5/8" O.D.	8	2.55
...	H058-F	Rubber Bumpers 1/2" O.D., 1/4" hole	8	2.55
6	H071-F	Rubber Tack Feet, 3/8" O.D.	10	2.64
7	H074-F	Felt Pads, 1/2" O.D. x 1/4"	40	.....
8	H075-F	Chassis Mts. Asst.	10	.....
8	H076-F	Chassis Mts., 3/4" O.D. x 3/4" high	5	6.49
9	H083-F	Rubber Bumper Asst.	..	.....
...	H085-F	Ass't Screw Type Chassis Feet	4	.....
...	H087-F	1/2" Feet, 3/16" ht. 6-32 Mach. Screw	4	7.96
		TERMINAL LUGS AND TERMINAL STRIPS		
	H100-F	Terminal Lugs, Asst.	30	.....
A	H102-F	No. 10, Style A	25	1.44
B	H104-F	No. 6 Style B	25	1.17
B	H106-F	No. 8 Style B	25	1.29
C	H108-F	No. 6 Style C	30	.99
F	H112-F	No. 6 Style F	25	.99
F	H113-F	No. 8 Style F	30	1.08
H	H114-F	No. 6 Style H	25	1.29
H	H117-F	No. 8 Style H	25	1.35
H	H118-F	No. 10 Style H	25	1.38
L	H122-F	No. 6 Style L	20	1.56
M	H124-F	No. 6 Style M	25	1.26
M	H134-F	No. 8 Style M	25	1.26
TV	H225-F	Solderless for T-V Line	10	3.15
10	H250-F	Terminal Strips, Asst'd	4	.....
		HOLE AND VENT PLUGS		
11	H300-F	Snap Hole Plugs, Asst'd	8	.....
11	H306-F	Snap Hole Plugs, 1/4" Hole	8	3.24
11	H308-F	Snap Hole Plugs, 3/8" Hole	8	3.24
11	H310-F	Snap Hole Plugs, 1/2" Hole	6	3.75
11	H312-F	Snap Hole Plugs, 5/8" Hole	6	4.50
11	H314-F	Snap Hole Plugs, 3/4" Hole	5	5.49
11	H316-F	Snap Hole Plugs, 1" Hole	5	7.26
12	H334-F	Vent Plugs, 1"	4	11.07

Fig. No.	G-C No.	Description	"50" Qty.	Net Price Per Gross
		TRIMOUNTS		
13	H370-F	Trimounts, Asst'd	20	.....
13	H373-F	Trimounts, 1/8" Hole	25	$1.35
13	H375-F	Trimounts, .136 Hole	20	1.65
13	H378-F	Trimounts, 5/64" Hole x 25/64" high	17	2.01
13	H379-F	Trimounts, 5/32" Hole x 21/32" high	15	2.25
		HAIR PINS AND COTTER PINS		
14	H380-F	Hair Pin Cotters, Asst'd	50	.....
15	H388-F	Cotter Pins, Asst'd	60	.....
		DIAL CORDS		
16	H395-F	Dial Cord, Extra thin	10'	.....
16	H396-F	Dial Cord, Std. thin	10'	.....
16	H397-F	Dial Cord, Med.	10'	.....
		SPRINGS		
17	H400-F	Dial Drive Springs, Asst'd., small	10	.....
17	H401-F	Springs, Asst., large and small	8	.....
17	H403-F	Springs, T1, 1/2" x 1/8"	10	3.24
17	H406-F	Springs, T2, 1" x 1/8"	8	3.69
17	H408-F	Springs, T3, 1" x 3/16"	8	3.66
17	H410-F	Springs, T4, 1 3/8" x 3/16"	8	4.74
17	H412-F	Springs, T5, 1 1/2" x 1/4"	6	5.15
18	H420-F	Tension Springs, Asst'd, small	10	.....
18	H421-F	Tension Springs, Asst'd, large	10	.....
19	H440-F	Compression Springs, Asst'd small	20	.....
19	H441-F	Compression Springs, Asst'd, large	15	.....
20	H450-F	Phono Springs, Asst'd, small	8	.....
20	H452-G	Phono Springs, Asst'd, large	8	.....
		KNOB SPRINGS		
	H460-F	TV Knob Spring Asst.	12	.....
22	H462-F	TV Spring, .202" shaft	10	3.42
21	H464-F	TV Spring, 3/8" flat shaft	10	2.79
	H480-F	Knob Spring, Asst.	18	.....
K1	H482-F	Knob Spring, K1	20	1.44
K2	H484-F	Knob Spring, K2	20	1.74
K3	H487-F	Knob Spring, K3	20	1.59
K4	H489-F	Knob Spring, K4	10	2.55
K6	H492-F	Knob Spring, K6	8	3.15
K8	H494-F	Knob Spring, K8	10	3.75
K10	H497-F	Knob Spring, K10	20	1.59
K11	H498-F	Knob Spring, K11	10	2.58
K11	H499-F	Knob Spring, K12	10	2.76
		CABLE CLAMPS AND BASE BOARD CLIPS		
23	H500-F	Cable Clamps, Asst.	20	.....
23	H502-F	Clamps, 1/8" to 3/16" Cable	25	1.17
23	H503-F	Clamps, 3/16" to 1/4" Cable	20	1.35
23	H506-F	Clamps, 5/16" to 1/2" Cable	15	1.53
24	H509-F	Base Board Wire Clip	20	1.95
		EYELETS AND RIVETS		
25	H510-F	Eyelet Asst.	50	.....
26	H515-F	.123" x 5/32" x .197"	50	.54
26	H525-F	Rivet Asst.	50	.....
27	H526-F	Rivet and Eyelet Asst.	55	.....
28	H527-F	TV Cord Rivets Asst.	..	.....
29	H560-F	Escutcheon Pins, Asst'd	100	.....
32	H565-F	Twin-Lead Wiring Nails	35	.84

G-C 50 LINE Electronic HARDWARE G-C 50 LINE

The Hinged Cover Line

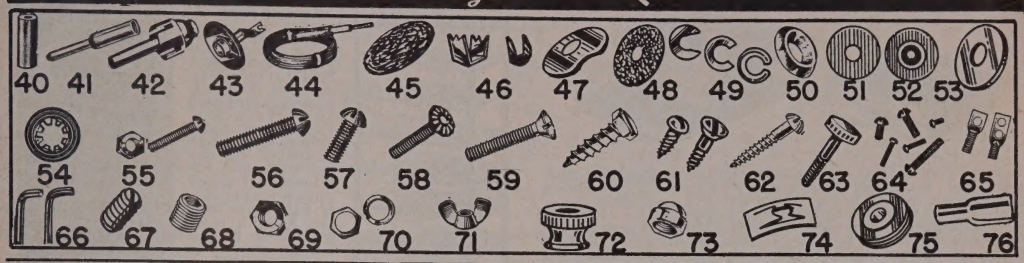


Fig. No.	G-C No.	Description	"50" Qty.	Gross, Net
		POPULAR ELECTRONIC HARDWARE		
30	H570-F	Angle Bracket Asst'd	12	.....
31	H590-F	Spring Contact Clips, Asst'd	12	.....
31	H592-F	Spring Contact Clips, small	15	$2.37
31	H594-F	Spring Contact Clips, medium	14	2.46
33	H600-F	Fuse Clips Asst'd	12	1.74
35	H609-F	Grid Caps, Asst'd	8	.....
34	H610-F	Grid Caps, TV Spring Type	5	.....
	H612-F	Grid Caps, Ins. High Volt. ¼" dia.	1	.....
	H614-F	Grid Caps, Ins. High Volt. ⅜" dia.	1	.....
37	H619-F	Corona Shields	8	.....
38	H620-F	Metal Spacers, Asst'd	12	.....
39	H630-F	Ins. Spacers, Asst'd	12	.....
40	H640-F	Fuse Insulators	16	.....
41	H645-F	Phone Tips	10	.....
42	H665-F	Phono Plug	4	.....
43	H667-F	Phono Jacks	3	.....
44	H675-F	Shielded Pick-Up Wire, several ft.	..	.....
45	H740-F	Speaker Dust Felts, Asst'd	15	.....
46	H744-F	Eyelets and Clamps, Asst'd	60	.....
46	H745-F	Dial Cord Clips, Asst'd	30	.....
46	H746-F	Dial Cord Clips, for thin Cable	40	.90
		WASHERS		
47	H750-F	Spring Washers, Asst'd	12	.....
48	H760-F	Knob Felt Washers	40	.....
49	H770-F	Ret. Rings and "C" Washers, Asst.	25	.....
49	H772-F	"C" Washers for 5/16" Shaft	15	.90
49	H774-F	"C" Washers for ¼" Shaft	15	.99
49	H778-F	Retaining Rings for ¼" Shaft	50	.45
50	H805-F	Cup Washers, Asst.	40	.....
50	H806-F	Cup Washers, No. 6 Screw	45	.45
50	H808-F	Cup Washers, No. 8 Screw	45	.51
50	H810-F	Cup Washers, No. 10 Screw	35	.54
51	H820-F	Ins. Washers, Flat, Asst'd	35	.....
51	H824-F	Ins. Washers, Flat, No. 6 Hole	30	.33
51	H825-F	Ins. Washers, Flat, No. 8 Hole	30	.39
51	H826-F	Ins. Washers, Flat, No. 10 Hole	30	.45
51	H827-F	Ins. Washers, Flat, ¼" Hole	24	.54
51	H828-F	Ins. Washers, Flat, ⅜" Hole	20	.63
52	H854-F	Ins. Washers, Asst. Ext. and Flat	30	.....
52	H855-F	Ins. Washers, Ext. Asst.	30	.....
52	H864-F	Ins. Washers, Ext. ⅜" Shaft	20	1.20
53	H870-F	Metal Washers, Asst.	80	.....
53	H874-F	Metal Washers, No. 4 Hole	80	.36
53	H876-F	Metal Washers, No. 6 Hole	80	.39
53	H878-F	Metal Washers, No. 8 Hole	80	.42
53	H880-F	Metal Washers, No. 10 Hole	70	.42
53	H882-F	Metal Washers, ¼" Hole	50	.48
54	H938-5	Lock Washers, All Types	45	.....
54	H920-F	Lock Washers, Asst'd	50	.....
54	H922-F	Lock Washers, No. 2 Hole	35	.79
54	H924-F	Lock Washers, No. 4 Hole	50	.51
54	H926-F	Lock Washers, No. 6 Hole	50	.51
54	H928-F	Lock Washers, No. 8 Hole	50	.57
54	H930-F	Lock Washers, No. 10 Hole	45	.60
54	H938-F	Lock Washers, ⅜" hole	25	1.35
...	H950-F	Lock Washers, External, Asst'd	60	.....
...	H960-F	Lock Washers, Split Type. Asst'd	60	.....

Fig. No.	G-C No.	Description	"50" Qty.	Gross, Net
		MISCELLANEOUS SCREWS, BOLTS		
61	H1500-F	Esc. Plate Screws, small	25	.....
62	H1502-F	Wood Screws, Asst.	25	.....
63	H1550-F	Assortment, Phono Screws	12	.....
63	H1551-F	2-56 x 9/16", Phono Screws	12	$0.69
63	H1553-F	2-64 x ¾", Phono Screws	12	1.48
63	H1555-F	1-72 x 1", Phono Screws	5	4.75
64	H1560-F	Asst. Phono Cartridge Mtg. Screws	60	.....
64	H1562-F	4-36 x ¼", Phono Cartridge Mtg.	40	.60
64	H1564-F	4-40 x ¼", Phono Cartridge Mtg.	40	.60
65	H1570-F	Spade Bolts, Asst.	15	.....
		WRENCH SETS		
66	H1600-F	Hex Wrench Set, Allen	4	.....
66	H1602-F	Spline Wrench Set, Bristol	4	.....
		KNOB SET SCREWS		
67	H1605-F	Asst. Slotted Knob Screws	15	.....
67	H1623-F	6-32 x 3/16", Slotted Knob Screws	15	1.89
67	H1633-F	8-32 x 3/16", Slotted Knob Screws	15	1.65
67	H1634-F	8-32 x ¼", Slotted Knob Screws	15	1.68
67	H1644-F	10-32 x ¼", Slotted Knob Screws	15	1.95
68	H1674-F	4-36 Asst., Allen Hex. Screws	5	.....
68	H1676-F	6-32 Asst., Allen Hex. Screws	5	.....
68	H1678-F	8-32 Asst., Allen Hex. Screws	5	.....
		HEX NUTS AND SPECIAL NUTS		
69	H1800-F	Assortment, Steel Hex Nuts	30	.....
69	H1802-F	2-56, Steel Hex Nuts	30	.90
69	H1803-F	3-48, Steel Hex Nuts	30	.87
69	H1804-F	4-40, Steel Hex Nuts	30	.84
69	H1805-F	4-36, Steel Hex Nuts	30	.84
69	H1806-F	6-32, Steel Hex Nuts, 3/32" thick	35	.87
69	H1807-F	6-32, Steel Hex Nuts, 3/16" thick	30	.93
69	H1808-F	8-32, Steel Hex Nuts, 3/32" thick	30	.87
69	H1809-F	8-32, Steel Hex Nuts, 3/16" thick	30	.96
69	H1810-F	10-32, Steel Hex Nuts	30	.93
69	H1820-F	¼-20 x 7/16"x 3/16" Steel Hex Nuts	25	1.32
69	H1842-F	4-36, Brass Hex Nuts	35	.99
69	H1844-F	4-40, Brass Hex Nuts	25	1.14
69	H1846-F	6-32, Brass Hex Nuts	25	1.17
69	H1848-F	8-32, Brass Hex Nuts	15	1.17
69	H1650-F	10-32, Brass Hex Nuts	15	1.65
70	H1920-F	Assortment, Mounting Nuts	12	.....
70	H1923-F	Vol. Cont. 3/8-32	15	2.34
70	H1924-F	Toggle Sw. Hex. 15/32-32	10	3.24
70	H1926-F	Toggle Ring 15/32-32	8	2.76
71	H1931-F	Wing Nuts, Asst'd	10	.....
71	H1933-F	Wing Nuts, 6-32	10	3.45
71	H1934-F	Wing Nuts, 8-32	10	3.45
71	H1935-F	Wing Nuts, 10-32	8	3.75
72	H1941-F	Assortment, Knurled Nuts	10	.....
72	H1943-F	6-32, Knurled Nuts	8	2.04
72	H1944-F	8-32, Knurled Nuts	8	2.25
72	H1945-F	10-32, Knurled Nuts	5	5.46
73	H1950-F	Acorn Nuts, Asst'd	10	.....
74	H1960-F	Speed Nuts, Asst'd	30	.....
75	H1966-F	Dial Pulleys, Asst.	6	.....
76	H1968-F	Plastic Anchor, Asst'd	8	.....

G-C No.	Description	"50" Qty.	Net, Gross
	SCREW AND NUT ASS'T (Fig. 55)		
H1000-F	Machine Screws	35	.....
H1001-F	Screws and Nuts	40	.....
H1002-F	Screws, Nuts, Sm.	35	.....
H1005-F	Rack Screws, Washers	15	.....
H-1008F	Hardware Asst.	100	.....
	ROUNDHEAD MACH. SCREWS (Fig. 56)		
H1010-F	Assortment 4-36	40	.....
H1012-F	Assortment 6-32	40	.....
H1016-F	Assortment 8-32	40	.....
H1018-F	Assortment 10-32	25	.....
H1022-F	2-56 x ¼"	40	$0.57
H1024-F	2-56 x ½"	40	.57
H1026-F	2-56 x 3/8"	40	.69
H1028-F	3-48 x ¾"	40	.72
H1032-F	4-36 x ¼"	40	.60
H1033-F	4-36 x 3/8"	35	.60
H1034-F	4-36 x ½"	35	.63
H1036-F	4-36 x ¾"	35	.72
H1042-F	4-40 x ¼"	40	.60
H1044-F	4-40 x ½"	35	.63
H1046-F	4-40 x ¾"	35	.75

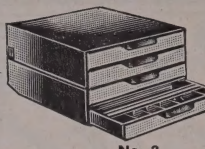
G-C No.	Description	"50" Qty.	Net, Gross
	ROUNDHEAD MACH. SCREWS—Cont.		
H1062-F	6-32 x ½"	40	$0.63
H1064-F	6-32 x ½"	30	.72
H1066-F	6-32 x ¾"	30	.84
H1068-F	6-32 x 1"	30	.96
H1070-F	6-32 x 1¼"	30	1.20
H1076-F	6-32 x 2"	20	1.77
H1082-F	8-32 x ¼"	30	.81
H1083-F	8-32 x 3/8"	25	.87
H1084-F	8-32 x ½"	25	.93
H1086-F	8-32 x ¾"	20	1.08
H1088-F	8-32 x 1"	20	1.23
H1090-F	8-32 x 1¼"	20	1.56
H1104-F	10-32 x ½"	20	1.08
H1106-F	10-32 x ¾"	20	1.29
H1108-F	10-32 x 1"	17	1.47
H1112-F	10-32 x 1½"	15	1.95
H1180-F	Asst. Phillips type	25	.....
H1210-F	Asst. Brass Rd. Hd.	30	.....
	BINDING HEAD SCREWS (Not Ill.)		
H1168-F	Assortment	35	.....
H1170-F	5-36 x ¼"	35	$0.99
H1172-F	6-32 x ¼"	35	.78
H1174-F	7-32 x ¾"	30	1.05

G-C No.	Description	"50" Qty.	Net, Gross
	ORNAMENTAL HD. SCREWS (Fig. 58)		
H1250-F	Assortment	20	.....
H1252-F	6-32 x ¾"	25	$0.90
H1253-F	6-32 x 1"	20	1.02
H1255-F	8-32 x 1¼"	12	1.56
	OVAL HEAD RACK SCREWS (Fig. 59)		
H1266-F	6-32 x ¾"	30	.90
H1270-F	8-32 x ¾"	25	1.08
H1273-F	10-32 x ¾"	20	1.26
	SHEET METAL SCREWS (Fig. 60)		
H1300-F	Assortment	25	.....
H1350-F	#4 x ½"	35	.99
H1362-F	#6 x ¼"	30	.99
H1363-F	#6 x 3/8"	25	.99
H1364-F	#6 x ½"	25	1.35
H1366-F	#6 x ¾"	20	1.44
H1382-F	#8x¼"AutoRadio	20	1.74
H1383-P	#8 x 3/8"	20	1.26
H1384-F	#8 x ½"	20	1.59
H1388-F	#8 x 1"	15	2.04
H1403-F	#10 x 3/8"	15	1.80
H1404-F	#10 x ½"	15	1.92
H1406-F	#10 x ¾"	12	2.13

Equipto Cabinets, Shelving, Benches

LITTLE GEM DRAWER CABINETS

No. 1



No. 2

Keeps even the smallest parts from getting lost. Rugged, one-piece construction. **No. 1 Unit**—3¼" high x 11" deep x 11" wide, shown at left, above, consists of two 1½" drawers in a one-piece frame. Each drawer is furnished with 8 dividers, providing for 24 adjustable compartments. Unit can't tip—connecting tabs push up and engage added shelves to prevent unit from tipping up—when used as insert in shelving. They also lock into next higher unit when drawer frames are stacked on each other. Drawer stop prevents accidental spilling of drawer. Drawer can be removed by tilting up front. Adding extra dividers makes possible a total of 28 compartments per drawer. ¾" overhang at rear of each compartment prevents parts from spilling into another compartment when drawer is opened or shut. Each compartment has ⅝" label holder at top, extra-large, 1⅜" label holder on drawer front. Front of compartment curved, making it easy to pick up small parts. Shpg. Wt., 10 lbs.

Equipto No. 1 Cabinet—And 8 dividers. Net Each..... $6.95

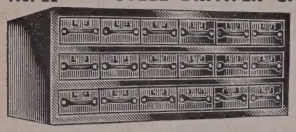
Equipto No. 2 Cabinet—Four drawers. 6½" x 11" x 11". Shpg. Wt., 20 lbs. Net Each..... $13.90

Equipto No. 3 Cabinet—Six drawers. 9¾" x 11" x 11". Shipping Wt., 30 lbs. Net Each..... $20.85

No. 8730 Dividers—1½" W. x 2¾" x 1½" D. Net Ea..... .08

STEEL DRAWER CABINETS

No. 11



No. 8505
Supplied less dividesr

Handiest unit for taking care of small parts. Stack, use individually, or as an insert under counters and shelving.

Equipto No. 8—Each (of 8) drawer is equipped with 2 cross dividers giving 24 adjustable compartments. Width, 23¼"; height, 9½"; depth, 12". Drawer size, 11" x 5⅝" x 3⅛" high. Label holders on every drawer and divider.
Shipping Wt., approximately 39 lbs. Net Each..... $14.35

Equipto No. 11—Each of 18 boxes comes equipped with 2 adjustable and removable dividers, making 3 compartments per box. Shipped set up complete, in olive green.
Shipping Wt., approximately 80 lbs. Net Each..... $23.35

Equipto No. 22—Same as No. 11 except 18" deep.
Shipping Wt., approximately 110 lbs. Net Each..... $34.95

No. 8505 Drawer—11" x 5⅝" x 3⅛". Shpg. Wt. 2 lbs. Net.. 80c

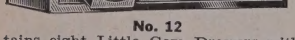
No. 8540—Above, except 17" deep. Net Each..... $1.10

No. 8710 Cross Dividers for 8505. Net Each..... .09

No. 8720 Cross Dividers for 8540. Net Each..... .09

No. 8711 Lengthwise Divider for 8505. Net Each..... .10

COMBINATIONS



No. 12

Equipto No. 9—Combines 4 No. 8505 Drawers (3 compartments each) with 4 Little Gem Drawers (12 compartments each). Provides total of 60 compartments. Shpg. Wt., approx. 42 lbs.
Net Each..... $24.33

Equipto No. 10—Contains eight Little Gem Drawers with 96 compartments. Extra dividers make 224 compartments possible. Shipping Wt., approximately 46 lbs. Net..... $34.31

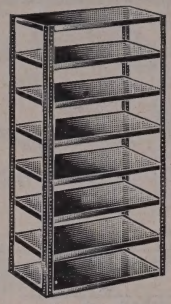
Equipto No. 12 (III.)—14 No. 8505 Drawers with 42 compartments and 4 Little Gem Drawers with 48 compartments. Provides a total of 90 compartments. Shpg. Wt., 82 lbs. Net $34.93

Equipto No. 13—10 No. 8505 Drawers (30 compartments) and 8 Little Gem Drawers (96 compartments). Provides a total of 126 compartments. Shpg. Wt., 88 lbs. Net Each $44.91

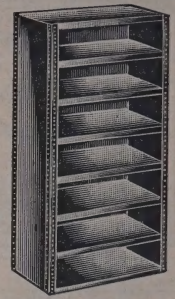
Equipto No. 14—6 No. 8505 Drawers (18 compartments) and 12 Little Gem Drawers (144 compartments). Provides a total of 162 compartments. Shpg. Wt., 95 lbs. Net Ea.. $54.89

STEEL SHELVING

OPEN TYPE



No. 871-8



No. 565-B

Equipto No. 871-8—Economical, all-purpose 8-shelf unit for loads up to 150 lbs. per shelf. All shelves adjustable on 1½" centers. The top, center and bottom shelves are bolted to the uprights to make a frame. All other shelves are instantly adjustable with the Equipto shelf slip. Shelf flanges may be turned up to make 1" bin front or down to make flat shelf. 12" deep x 36" wide x 7' high. Shipping Wt., approximately 82 lbs. Shipped knocked down. Net Each..... $19.70

Equipto No. 893-8—Same as 871-8 except 8" deep. Shipped knocked down. Spg. Wt., approx. 60 lbs. Net Ea. $18.50

CLOSED TYPES

Equipto No. 565-B—Same as above, but includes both sides and back. 12" deep x 36" wide x 7' high. Shipping Wt., approx. 138 lbs. Knocked down, Net Each **$27.00.** Set up, Net Each **$30.64**

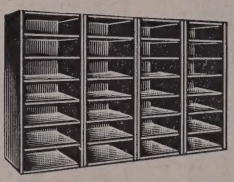
Equipto No. 565-A—Same as 565-B except 8" deep. Shpg. Wt., 105 lbs. Knocked down, Net **$25.80.** Set up, Net... **$28.44**

Equipto No. 565-B2—With back and one side. 12" deep. Shpg. Wt., 115 lbs. Knocked down, Net **$25.20.** Set up, Net **$28.84**

Equipto No. 565-A2—Same as 565-B2 except only 8" deep. Shpg. Wt., 100 lbs. Knocked down, Net **$24.00** Set up, Net **$26.64**

SHELVING DROP-SHIPPED FROM AURORA, ILLINOIS

TYPICAL ASSEMBLY



Don't waste space with oversized shelving. The new 8" deep Equipto shelving specifically made for electronics trade can be used as a regular instantly adjustable shelf or inverted to use the turned up shelf edge for extra protection to keep valuable items from falling to the floor. The 8" depth is made expressly for the narrow lineup of merchandise necessary in this field. Holds 150 lbs. without reinforcements. Can be reinforced to hold up to 1200 lbs. on each shelf. Use units end to end as shown, or back to back for maximum storage in small space. Shelves may be adjusted on any unit on 1½" centers without adjusting shelves on any other unit.

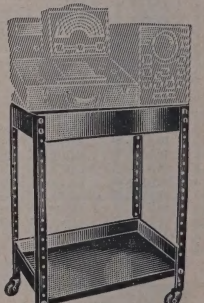
ELECTRONIC CHASSIS AND TEST EQUIPMENT STAND

Test equipment stand for radio, TV and electrical equipment. Use as a stand for your stationary test equipment. May be shipped with rubber tires for noiseless transport or test equipment, or equipment to be tested. Also this handy stand makes a fine hand truck when wheels are added for loading and unloading chassis to and from delivery trucks. Finished in olive green polymerized shock-resistant enamel.

Equipto Model 709—Without wheels. Shipping Wt., 40 lbs. Net Each..... $12.12

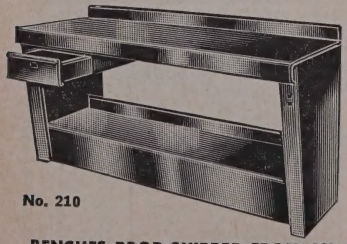
Equipto Model 710—With 2½" rubber wheels. Shpg. Wt., 42 lbs. Net Each..... $13.77

Equipto Model 711—With 2½" rubber wheels and pressed wood top. Shpg. Wt., 50 lbs. Net Each..... $15.27



No. 710

12 GAUGE STEEL ELECTRONICS WORK BENCHES



No. 210

No. 220

Equipto No. 210—34" x 28" x 6' long. Comes complete with Back Rail and drawer. Electrical knockouts, bottom shelf with rear riser and base. These benches have 12 gauge steel tops, making probably the heaviest standard bench manufactured. Will support vises, small punch presses, bench grinders, drill presses or lathes with ease. May be bolted to floor through concealed holes inside flange of end panel. With one 220 drawer. Accommodates two extra drawers if desired. Finished in green polymerized shock-resistant enamel. Drawer comes with padlock attachment and slides on roller bearings.
Shipping Wt., approximately 225 lbs. Net Each..... $49.70

Equipto No. 211—Same as No. 210 except with masonite top cemented over steel. Shipping Wt., approx. 225 lbs. Net **$61.65**

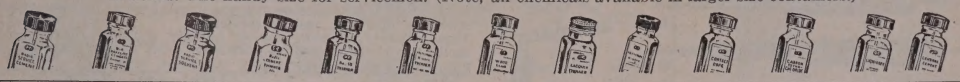
Equipto No. 212—Same as 210 except with kiln dried maple (2" x 1¾" strips) top. Shpg. Wt., 245 lbs. Net Each..... **$97.50**

No. 220 Drawer—Identical with drawer used in 210 bench. Absolutely rigid. Cover entirely closes the dust-proof drawer. With padlock attachment. Roller bearings. May be bolted to present equipment. 4" x 15" x 20". Shpg. Wt., 28 lbs. Net..... **$9.00**

BENCHES DROP-SHIPPED FROM AURORA, ILLINOIS

CEMENTS — CLEANERS — COIL DOPES — THINNERS — IN HANDY 2-oz. BOTTLES

2-oz. size chemicals in wide mouth bottle for easy accessibility. Supplied with plastic cap with brush attached. The handy size for servicemen. (Note, all chemicals available in larger size containers.)



G-C Radio Service Cement—The best cement for repairing radios and torn speaker cones, or replacing torn cones. Vibration-proof, water-proof, and fast drying.
No. 30-2—2-oz. Net Each.....39c
No. 30-4—4-oz. Net Each.....66c
No. 34-2—Tube. Net Each.....36c

G-C Plastic Cement—For broken plastic cabinets, knobs, dials, and crystal assemblies, grille cloth, etc.
No. 32-2A—2-oz. Net Each.....39c

G-C Bakelite Cement—The only cement for use on bakelite. Use on bakelite knobs, cabinets, panels.
No. 32-2—2-oz. Net Each.....51c

G-C Vinylite Cement—Thermoplastic cement. Clear plastic cement for use in metals, plastics, paper, leather, etc. Sets on cooling.
No. 58-2—2-oz. Net Each.....39c

G-C Model Cement—For the home and model maker. Use on wood, paper, plastics, metal, china, ceramics, etc. Water-proof, fast drying.
No. 45-2—2-oz. Net Each.....30c

G-C Rubber-to-Metal Cement — For cementing dial drives, rubber mountings, gaskets, hose, weather stripping, etc.
No. 35-2—2-oz. Net Each.....39c
No. 35-3—Tube. Net Each.....39c

G-C Wood Glue — New white resin, water-proof glue for radio cabinets, furniture, chairs, etc. Extra strong and will not injure finish.
No. 39-2—2-oz. Net Each.....39c

G-C Fabric-to-Metal Cement — Cements cloth or felt to metal or plastics. Ideal for grille cloth, phono turntable felts, all fabrics, paper etc.
No. 22-4—4-oz. Net Each.....66c

G-C SCRATCH REMOVER POLISHES

DARK

Polish contains stains to remove scratches. Sell to housewives.
No. 92- 2— 2-oz. Net..30c
No. 92- 8— 8-oz. Net..39c
No. 92-16—16-oz. Net..66c

G-C Ne-O-Prene Cement—For cementing prene rubber to neoprene or other products, such as metal, wood, paper, etc. Fast drying.
No. 52-2—2 oz. Net Each.....39c

G-C Vinyl Plastic Fabric Cement—For cementing vinyl plastic sheets together. Ideal for venyl insulating tubing. Dries fast, welds the material together.
No. 16-2—2 oz. Net Each.....39c

G-C Carbon Control Cleaner—Cleans and eliminates noise in carbon volume controls without taking apart. Special applicator. Just squirt cleaner along shaft.
No. 212-2—2-oz. Net Each.....39c

G-C Pli-O-Bond—A cold-setting, rubber-like, thermoplastic liquid that dries rapidly to a waterproof, chemically-resistant bond with permanent flexibility and very high strength.
No. 43-2—2 oz. Net Each.....39c

G-C Contact and Crystal Cleaner—Extra pure cleaner especially for crystals and contacts. Leaves no film.
No. 127-2—2-oz. Net Each.....33c

G-C Red Contact Cleaner—The best all-purpose cleaner for contacts. Dissolves dirt, removes corrosion and leaves a protective film.
No. 210-2—2-oz. Net Each.....33c

G-C Acrylic Cement—For lucite, plexiglass, and acrylic materials. Strong, fast drying.
No. 40-2—2-oz. Net Each.....39c

G-C TV High Voltage Corona Dope—For preventing corona shorts in high voltage circuits in TV sets. Easy to apply, air drying. Use on any high voltage circuit.
No. 50-2—2 oz. Net Each.....72c

G-C RUF-KOAT WRINKLE VARNISH

The only wrinkle finish that will air dry. Colors: Black, Gray, Brown, Green, Red and Blue.

No 60- 2— 2-oz. Net Each.....39c
No. 60- 8— 8-oz. Net Each.....$1.14
No. 60-16—16-oz. Net Each.....$1.98

(Specify Color)

G-C Q-Dope—Liquid polystyrene low-loss coil dope for RF, UHF, and VHF components. Will not change circuit values. Also a polystyrene cement.
No. 37-2—2-oz. Net Each.....39c

G-C Liquidope—Clear fast drying. Gives excellent support to coil forms. Non-inductive, all wave dope.
No. 36-2—2-oz. Net Each.....39c

G-C Radio Service Solvent—Best thinner for all cements—dissolves cement off old cones and speakers.
No. 31-2—2-oz. Net Each.....33c
No. 31-8—8-oz. Net Each.....75c

G-C Cement Thinner—Best thinner for G-C Service Cement.
No. 28-2—2-oz. Net Each.....33c

G-C Paint Thinner — For Ruf-Koat, Krome Koat, Rubber-Cements, Varnishes, etc.
No. 67-2—2-oz. Net Each.....33c

G-C Lacquer Thinner—Thins all lacquer, lacquer enamels, telephone black & gray, etc.
No. 29-2—2-oz. Net Each.....33c

G-C Q-Dope Thinner—Solvent for Q-Dope and polystyrene materials. Clear water white solvent.
No. 41-2—2-oz. Net Each.....33c

G-C Strip-X—Strips enamel from magnet wire. Just dip wire into and wipe off insulation—cleaned, ready for soldering.
No. 26-2—2-oz. Net Each.....39c

G-C Electrical and Resistor Cement—Heat proof cement that hardens like porcelain. Use on resistors, heating elements, etc.
No. 27-2—2-oz. Net Each.....39c

G-C FELT KOAT FLOCK KIT

New G-C kit with special blower gun. Distributes flock evenly and applies a thick velvet-like coat. Kit is complete with gun, brown and ivory flock, brown and ivory undercoat, thinner, brush, etc. Gives professional job on turntables, cabinets, grilles, tool boxes, toys, signs, etc. Has thousands of applications.
No. 180-1—Complete Kit.
Net Each.....$1.65

KRYLON ACRYLIC SPRAY

AVAILABLE IN CLEAR, ALUMINUM, BLACK, WHITE AND SEVEN COLORS AS LISTED BELOW.

Acrylic plastic base spray. Protects from weather, moisture, rust, fungus, corrosion. Clear and Aluminum sprays are non-conductive for use on antennas, masts, etc. Non-flammable. Dries in 10 minutes, hardens in 2 hours.

1302—Crystal Clear
1306—Fixatif
1401—Brt. Aluminum
1501—Touch-up White
1601—Glossy Black
1602—Flat Black
1603—Machine Gray
1604—Light Gray
1701—Bright Gold
1801—Chrome Yellow
1901—Regal Blue
2001—Hunter Green
2101—Cherry Red

12 oz. can. State Color. Net Each. $1.47

163-54A

G-C TV TUBE KOAT

New, fast drying conductive coating for recoating the outside of TV picture tubes that are scratched or peeling. Also used to coat the inside of TV cabinets for prevention of high voltage leaks and static discharge. Ideal for coating at point where ground clips contact tube.
No. 49-2—2 oz. Bottle. Net Each...57c
No. 49-8—8 oz. Bottle. Net Each.$1.59

G-C TELEPHONE BLACK or GRAY

High grade lacquer enamel. Black is satin ebony similar to telephones. For panels, racks or parts.
No. 62- 2— 2-oz. Net Each.....39c
No. 62- 8— 8-oz. Net Each.....$1.14
No. 62-16—16-oz. Net Each.....$1.98

(Specify Color)

Soldering Irons, Guns and Accessories

AMERICAN BEAUTY IRONS, ACCESSORIES

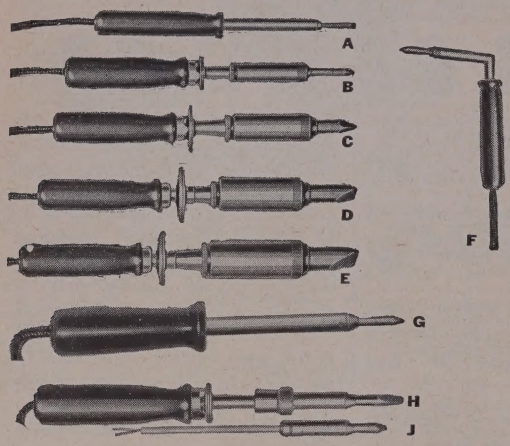


Fig. J—Replacement Element with Tip for No. 3438 and 3438EP Irons. Net Each..... **$3.33**

SOLDERING IRONS

Incorporated in these irons are features of construction and design that specialized experience has shown to be desirable for efficiency and long lasting service.

Tips: Plug-type, pure copper heavily nickeled, easy tinning, easily removable. **Heating Element:** Unit construction for easy removal, compression wound, corrosion resistant.

Am. Beauty No.	Fig.	Diam. Tip	Watts	Lgth. Over All	Casing Diam.	Approx. Ship. Weight	Net Each
3118	G	1/8"	30	9 1/4"	.....	12 oz.	$3.33
3120	G	5/16"	30	9 1/4"	.....	12 oz.	3.33
3138	B	3/8"	100	12 7/8"	7/8"	2 lbs.	5.83
3158	C	5/8"	200	13 5/8"	1 1/4"	3 lbs.	6.83
3178	D	7/8"	300	14 3/8"	1 5/16"	4 lbs.	9.00
3198	E	1 1/8"	550	15"	1 3/4"	5 3/4 lbs.	11.66
3128	A	1/4"	60	12 1/4"	5/16"	1 lb.	3.67
3128-A	F	1/4"	60		5/16"	1 lb.	4.00
3438*	H	3/8"	100	13 1/4"	.....	1 1/2 lbs.	7.33
3438EP*	H	3/8"	100	13 1/4"	.....	14 3/4 oz.	7.99

*3438 Iron plated tip. 3438EP Eternalloy plated tip. Both are available in 125 and 140 watts.

REPLACEMENT ELEMENTS

Elements for Soldering Iron Models 3128 and 3128-A include handle, tube, spring and terminal assembly.

Am. Beauty No.	For Iron No.	Net Each
9272	3128	$1.99
9272-A	3128-A	2.39
9281	3118	1.83
9280	3120	1.83
9273	3138	2.39
9275	3158	3.19
9277	3178	4.32
9279	3198	5.69

TEMPERATURE REGULATING STAND

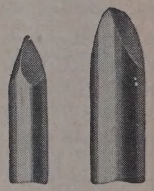
Thermostatically controlled device for regulation of soldering iron while at rest. When placed on this stand soldering iron is maintained at desired temperature, from very low to full heat. Temperature adjustment located on bottom of plastic base. Complete with line cord, receptacle for connecting iron to regulator. Designed for irons up to 660 watts capacity and on circuits up to 240 volts. Shipping weight 2 1/2 lbs.

American Beauty No. 475. Net Each..... **$4.41**

PURE COPPER REPLACEMENT TIPS

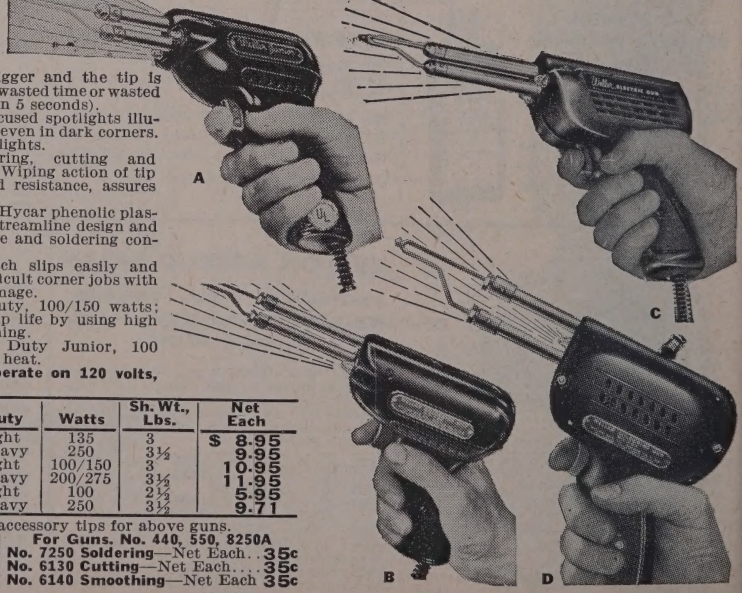
Tip* No.	For Iron No.	Tip Diam.	Net Each
3718	3118	1/8"	$0.16
3720	3120	5/16"	.20
3728 & S	3128 & A	1/4"	.30
3728IP & S-IP	3128 & A	1/4"	.57
3738 & S	3138	3/8"	.37
3738IP & S-IP	3138	3/8"	.64
3758	3158	5/8"	.85
3758IP	3158	5/8"	1.22
3778	3178	7/8"	1.61
3778IP	3178	7/8"	2.06
3798	3198	1 1/8"	2.75
3798IP	3198	1 1/8"	3.27

*All tips with the exception of **3728S** and **3738S** can be furnished with either chisel or diamond point—**PLEASE SPECIFY.** 3728S and 3738S are chisel point only. Letter suffix **IP** indicates tips have special long life American Beauty Iron-Plating which materially lengthens tip life—all others are nickel plated.



Diamond Point **Chisel Point**

WELLER SOLDERING GUNS



INSTANT HEAT—Just press the trigger and the tip is instantly at soldering temperature, no wasted time or wasted electricity. (New Junior Model heats in 5 seconds).
DUAL SPOTLIGHTS—Built-in prefocused spotlights illuminate work evenly and without glare, even in dark corners. No more blind soldering or using flashlights.
INTERCHANGEABLE TIPS—Soldering, cutting and smoothing tips easily interchangeable. Wiping action of tip nuts eliminates contact oxidation and resistance, assures constant heat.
HIGH IMPACT HOUSING—Rugged Hycar phenolic plastic housing protects against damage. Streamline design and built-in transformer give pistol-balance and soldering convenience.
PRECISE OPERATION—Longer reach slips easily and accurately between wiring, handles difficult corner jobs with ease. Speeds work, ends insulation damage.
2 DUAL HEAT MODELS—Light Duty, 100/150 watts; Heavy Duty, 200/275 watts. Saves tip life by using high heat only when needed. Instant switching.
2 HOMECRAFT MODELS—Light Duty Junior, 100 watts; Heavy Duty, 250 watts. Single heat.
All Weller Soldering Guns listed operate on 120 volts, 60 cycle, AC only. UL Approved.

Weller No.	Key Letter	Gun Type	Duty	Watts	Sh. Wt., Lbs.	Net Each
S-400	B	Single heat	Light	135	3	$ 8.95
S-500	B	Single heat	Heavy	250	3 1/2	9.95
S-440	D	Dual heat	Light	100/150	3	10.95
S-550	D	Dual heat	Heavy	200/275	3 1/2	11.95
8100	A	Junior Single	Light	100	2 1/2	5.95
8250A	C	Single Heat	Heavy	250	3 1/2	9.71

WELLERTIPS—Extra and accessory tips for above guns.

For Guns No. 400, 500, 8100
No. 7135 Soldering—Net Each..25c
No. 6110 Cutting—Net Each....35c
No. 6120 Smoothing—Net Each 35c

For Guns. No. 440, 550, 8250A
No. 7250 Soldering—Net Each..35c
No. 6130 Cutting—Net Each....35c
No. 6140 Smoothing—Net Each 35c

116-54D

Soldering Irons, Solder, Tape

UNGAR SOLDERING IRONS

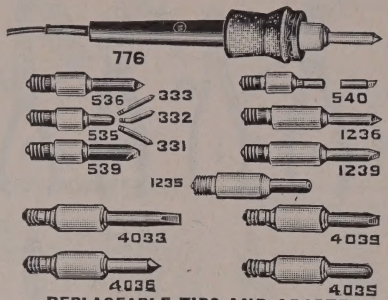
8 NEW FEATURES

1. Full Length Cord. 65 strand. extra flexible.
2. New, Cooler Handle of durable molded plastic.
3. Underwriters' listed.
4. Ceramic Separator for double safety.
5. Spring Action Rivet assures positive contact at all times.
6. Extra Length Brass Shell firmly engages all threads and keeps heating unit tight.
7. 47½ Watt Element. 1,000 degree tip temperature. 110-120 volt AC-DC.
8. Interchangeable tips. 6 Copper Tips with ample heat up to 600° F. in 90 seconds. 5 Hi-Heat Iron Tips, to 800°. 6 Tellurium Copper Super Hi-Heat Tips with tip temperatures 850° to 1000° F.

Ungar No. 776—With tip No. 536. Net Each..... **$1.80**
Lots of 10—Each..... **$1.47**

NEW SUPER HI-HEAT TIPS

850° to 1000° F. actual tip temperature for production line or other heavy duty soldering. Tellurium copper tips plated with iron to eliminate need for grinding, filing and other maintenance chores. Tips are silver coated for ease of tinning. Tip temperatures range from 850° for No. 4035, 900° for No. 4033 and 1000° for Nos. 4036 and 4039. No. 776 handle plus Super Hi-Heat tips uses 47½ watts; with 1200 Series Tips, 37½ watts and with 500 Series Tips, 23½ watts.



REPLACEABLE TIPS AND ADAPTER

Ungar No.	Description	Net Each	Net 10 Lot
535	Std. threaded unit to hold tips 331, 332, 333.....	$0.88	$7.20
331	Elkaloy Pencil Tip.....	.12	1.00
332	Elkaloy Offset Pencil Tip	.12	1.00
333	Elkaloy Chisel Tip.....	.12	1.00
536	Standard Pyramid Tip..	.88	7.20
539	Standard Chisel Tip....	.88	7.20
540	Plastic and Marking Unit	.88	7.20
1236	Hi-Heat Pyramid Tip...	1.08	8.80
1239	Hi-Heat Chisel Tip.....	1.08	8.80
1235	Hi-Heat Threaded Unit for 331, 332 and 333 Elkaloy Tiplets.....	1.08	8.80
4035	Super Hi-Heat Thrd. Unit for 331, 332, 333.	2.40	19.50
4033	Super Hi-Heat Chisel Tip	2.40	19.50
4036	Super Hi-Heat Pyramid Tip.....	2.40	19.50
4039	Super Hi-Heat Heavy Chisel Tip.....	2.40	19.50

Ungar No. 776 Handle with Cord and all Ungar Pencil Soldering Units Underwriters' Laboratories Listed.

SCOTCH NO. 33 ELECTRICAL TAPE

WITH PLASTIC BACKING

12" Job Size" 20 ft. rolls of SCOTCH No. 33 Electrical Tape in a strong, neat tube. Each roll a convenient one day supply. Tube takes up little storage room and gives the tape perfect protection while in stock. The 20-foot roll is an average day's supply for an electrician with a steady schedule of wiring assignments. Tough, stretchy, thin caliper tape (.007"), high dielectric. Furnished on 1" cores.

Scotch No. 33 Electrical Tape— ¾" x 66 foot roll. Net Each..... **$1.50**
Carton of 12 rolls. Net Per Roll... **$1.35**
Scotch No. 33 Electrical Tape— ¾" x 20 foot rolls. Net Each..... **55c**
Tube of 12 rolls. Per roll, Net Ea.... **50c**

NO. 33 THREE-EIGHTHS

⅜" wide x 20 ft. long.
Per roll, Net Each..... **35c**
Tube of 12 rolls, per roll, Net Each.. **32c**

ERSIN MULTICORE SOLDER

Has five cores of Ersin Flux. Thin wall for faster melting. Noncorrosive, dependable. Lab tested, proven to be able to solder directly and quickly to nickel and cadmium plated chassis, tags and parts. Now in new Service Pak plus the 1-lb. cartons and 7-lb. reels.

Ersin Service Pak—Specify alloy: 40/60 16-ga., 50/50 17-ga. or 60/40 18-ga. Net Each..... **50c**

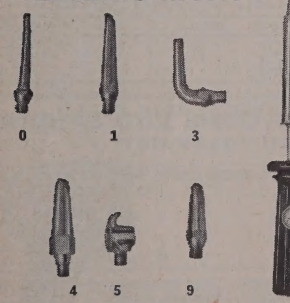
1 POUND CARTONS

Alloy	No. 14	No. 16	No. 18
40/60	$1.26	$1.28	$1.32
45/55	1.36	1.38	1.42
50/50	1.43	1.45	1.49
60/40	1.60	1.62	1.66

7 POUND REELS

Alloy	No. 14	No. 16	No. 18
40/60	$ 8.54	$ 8.68	$ 8.96
45/55	9.24	9.38	9.66
50/50	9.73	9.87	10.15
60/40	10.92	11.06	11.34

KWIKHEAT SOLDERING IRONS



EIGHT INTERCHANGEABLE TIPS ARE AVAILABLE

Tip No's. 0, 1, 3, 4, 5, 9
Net Each Tip..... **$1.13**

KWIKHEAT SOLDERING IRON

Thermostatically controlled: heats three times faster, maintains constant temperature; tip stays tinned 10 times longer. Can't overheat. ½ weight of other irons. Air cooled handle. Guaranteed one year.

Kwikheat No. 300, 225 watts, 115 volts AC operation only. With 6 foot cord and plug. Complete with one tip.
Net Each..... **$9.18**
Extra element for No. 300 iron. Easily replaced. Net Each..... **$6.45**

ANTI-FREEZE COMPOUND

Kwikheat No. 20, Anti-Freeze Compound for all soldering iron tips. Per tube.
Net Each..... **45c**

KESTER SOLDER AND SOLDERING PASTE

Rosin Core Solder—High grade for radio and electrical work. Easy flowing "plastic rosin" eliminates corrosion or leakage. Convenient Tin.
Net Each..... **17c**
1 lb. Spool.. **$1.07** 5 lb. Spool.. **$5.15**
Thin Rosin Core—1/16" diameter for delicate jobs. Net per Spool.
1 lb. Spool.. **$1.10** 5 lb. Spool.. **$5.30**

"RESIN FIVE CORE"

Dia.	Wt. Spool	Composition: Tin/Lead 40/60	50/50	60/40
1/16"	1 lb.	$1.07	$1.24	$1.39
1/16"	5 lb.	5.15	6.06	6.80
3/32"	1 lb.	1.04	1.21	1.36
3/32"	5 lb.	5.00	5.85	6.60

Acid Core Solder—For general soldering other than electrical connections.
Handy Tin. Net Each..... **17c**
1 lb. Spool.. **$1.07** 5 lb. Spool.. **$5.15**
Soldering Paste—Specially processed for more even distribution of fluxing ingredients. Convenient 2-oz. cans. Shipping Weight 5 oz.
Net Each Can..... **12c**
10 Cans for..... **$1.05**
Tinning Block—Cleans and tins soldering irons quickly. Replaces sal ammoniac. Permits efficient soldering. Shipping Weight 1¼ lbs.
Net Each..... **65c**

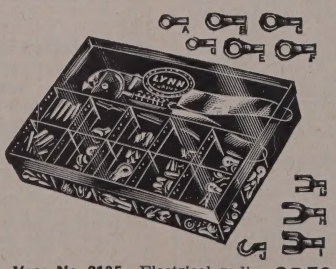
LYNN LIGHTNING SOLDERLESS TERMINAL TOOL AND KIT

Here in one compact unit are all the terminals . . . plus crimping tool . . . equipped with wire cutter and stripper. Ten individual bins in clear plastic box are properly identified by terminal stock number. Reduces time and trouble involved in regular splicing procedures by elimination of wire twisting and soldering operations.

REFILL PACKS—Net Each $1.00

Vaco No.	Wire Size	Stud, Inches	Hole Dia.	Pkg. Quan.
2300	22–16	4–6	5/32	45
2301	22–16	4–6	5/32	45
2302	22–16	8–10	13/64	45
2400	16–14	4–6	5/32	45
2401	16–14	4–6	5/32	45
2402	16–14	8–10	13/64	45
2600*	22–16	4–6	5/32	50
2601*	16–14	4–6	5/32	45
2602*	16–14	8–10	13/64	45
3300*	22–16	4–6	5/32	50

*Open end type.

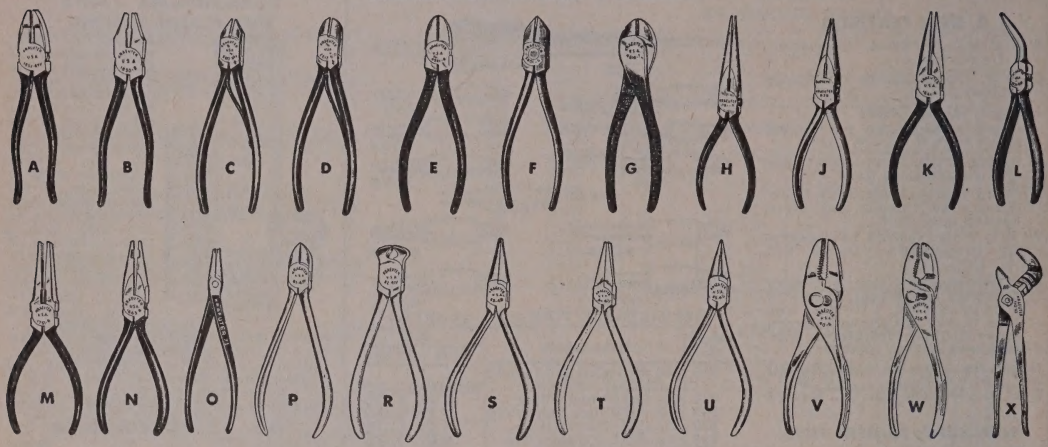


Vaco No. 2195—Electrical, radio and TV kit. Net Each..... **$8.50**
Vaco No. 1900—Crimping tool only. Net Each..... **$3.50**

132-55A

Hand and Power Tools

KRAEUTER HAND TOOLS



Model	Size, In.	Fig.	Description	Net Each
1802	8½	A	Lineman's oval N.E. head sidecuts	$4.25
1830	7	B	Electrician's side cutting pliers	2.55
5612	6½	C	Needle pt. diag. stripping, notched	3.40
2612	6½	D	Wire-stripping diagonals, spring	2.89
4501	4½	E	Diagonal "oblique" cutting pliers	2.00
4501	5	E	Diagonal "oblique" cutting pliers	2.25
4501	6	E	Diagonal "oblique" cutting pliers	2.55
5601	4½	F	Needle point diagonal cutting pliers	2.55
5601	5	F	Needle point diagonal cutting pliers	2.72
5601	6	F	Needle point diagonal cutting pliers	3.06
4610	5	G	Hi-power diagonal cutting pliers	2.21
4610	7	G	Hi-power diagonal cutting pliers	2.55
1781	7	H	Xtra-long chain nose pliers	2.89
824*	4½	J	Short nose needle point pliers	2.55
825*	5	J	Medium nose needle point pliers	2.76
826*	6	J	Long nose needle point pliers	2.98

*Available without cutter.

Model	Size, In.	Fig.	Description	Net Each
827*	7	J	Xtra-long needle point with cutter	$3.32
1661*	6	K	Long chain needle nose pliers	2.55
1631	5½	L	Curved needle or snipe nose pliers	2.55
1751*	6	M	Long flat nose pliers	2.76
1663	6	N	Radio and ignition nose-cutting pliers	2.64
71	8	O	Short jaw nose-cutting pliers	3.19
81	4½	P	Jewelers' diagonal cutters	2.55
82	4½	R	Jewelers' end-cutting pliers	3.06
83	4½	S	Jewelers' chain nose pliers	2.47
84	4½	T	Jewelers' flat nose pliers	2.55
85	4½	U	Jewelers' round nose and jaw pliers	2.55
40	6	V	Thin nose pliers, nickel plated	1.40
356†	5½	W	"Griptite" combination pliers	1.66
356†	6	W	"Griptite" combination pliers	1.87
356†	8	W	"Griptite" combination pliers	2.34
710	10	X	Tongue-N-Groove joint pliers	2.42

*Available without cutter. †For heavy duty. Nickel plated.

PLIERS WITH CUSHION GRIP HANDLES

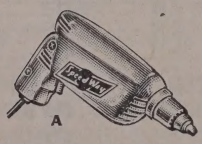
Identical to same numbers above, with red vinylite handles.

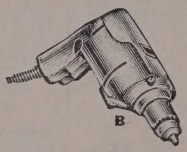
Model	Size	Net Each	Model	Size	Net Each
CG-81	4½"	$2.55	CG-1771	7"	$2.55
CG-83	4½"	2.47	CG-4501	5"	2.59
CG-1661	6"	2.89	CG-4501	6"	2.89

ALLOY STEEL ADJUSTABLE WRENCHES (NOT ILL.)

Model	Size	Net Each	Model	Size	Net Each
31	4"	$1.79	31	10"	$2.64
31	6"	1.79	31	12"	3.83
31	8"	2.08			

SPEEDWAY PORTABLE ELECTRIC DRILLS





Here are three electric drills designed to fulfill the needs of the home workshop. Their powerful series-wound universal motors operate on 115 volts AC-DC, but special models are available at extra cost for 32v. or 230v. Sturdy die-cast aluminum frames. Self-aligning oilless bearings. Pistol grip. 6-ft. 3-wire SJ Cord.

Model 201-J ¼" SpeedDrill (Fig. A)—A low-cost electric drill, powered to a capacity of ¼" in steel and ½" in hard wood. It has an industrial type ¼" Jacobs key chuck. No load speed is 2400 rpm, 1500 rpm full load. Net Each..... **$19.95**

Model 201 ¼" SpeedDrill. (Not Ill.)—Same as above, except has snap-action, 3-jaw chuck. Net Each..... **$16.95**

Model 300 ¼" SpeedDrill (Fig. B)—A heavier built drill geared for the extra power needed by the serviceman or installer. It has a no load speed of 2000 rpm and a full load of 1300 rpm. Has heavy duty industrial geared chuck with both ball and oilless bearings. Capacity is ¼" steel or ½" hard wood. Net.. **$29.50**

SPEEDWAY PORTABLE ELECTRIC SANDER (NOT ILL.)

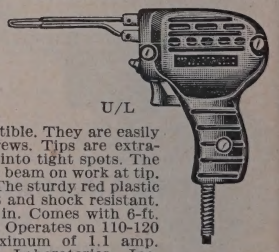
The SpeedSander is a great labor saver for the home painter, remodeler or cabinet maker. Sands, rubs, buffs and polishes to a piano finish quickly and easily. Professional-type, orbital motion sander with all-sealed ball bearings. 3450 rpm direct connected, air-cooled, induction motor (115 volt AC only). Uses any standard sheet abrasive, wet or dry (3 covers may be cut from 9 x 11" sheet) or can be used with "wet or free" abrasives. Die-cast aluminum housing. Weight, 5 lbs. **$34.50**

Model 150 Speed Sander. Net Each.....

Write for prices of kits available with above Drills and Sander.

WEN SOLDERING GUNS AND SANDER

NEW WEN "QUICK-HOT"



Combines extremely fast heating with light weight for easy handling. It is working hot only 2¼ seconds after the trigger is pressed. Ideal for close delicate work. The tips are of the new type steel nose lifetime, that properly used are almost indestructible. They are easily removed by loosening set screws. Tips are extra-long and narrow for reaching into tight spots. The built-in spot light focuses light beam on work at tip. The gun weighs only 1½ lbs. The sturdy red plastic handle and case both are heat and shock resistant. Overall length without tip, 5 in. Comes with 6-ft. Prenex cord and molded plug. Operates on 110-120 volt, 60-cycle AC, with maximum of 1.1 amp. Approved by Underwriters' Laboratories, Inc. Shipping Weight, 2¼ lbs.

Wen Model 199 "Quick-Hot" Soldering Gun— Net Each..... **$5.95**

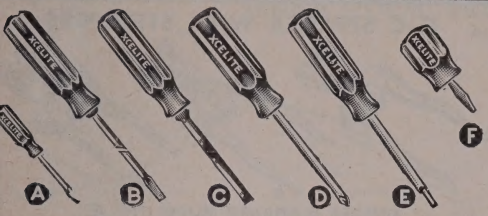
WEN SANDER-POLISHER

Quiet operation from vibrator motor. Smooth action—no whip or bounce, minimum vibration. Positive straight line action—sands with the grain, all the way into inside corners. Self-tightening clamp. 13¾" sanding area. High speed cool operating motor. Choice of utility black, fire engine red or marbled green color. 14,400 strokes per minute. Approx. ⅛" throw under load. Paper size, 2½" x 7 15/16". Weight, 2½ lbs. Size: 5⅝" long x 2½" wide x 3 1/16" high. Complete with 6-ft. U/L approved Prenex cord with molded plug.

Wen Model 202—With 6 sheets of finishing sandpaper and one Polishing Cloth. Net Each..... **$10.46**

571X-55A

XCELITE Quality Tools



ROUND BLADES, NICKEL PLATED—POCKET STYLE

Fig. A

Xcelite No.	Handle Diam.	Handle Length	Blade Diam.	Blade Length	Overall Length	Net Each
R-3323	1/4"	2"	3/16"	3"	5"	$0.24
R-3324	1/4"	2"	3/16"	4"	6"	.24
R-183	1/4"	2"	1/8"	3"	5"	.24
R-184½	1/4"	2"	1/8"	4"	6"	.24

ROUND BLADES, POLISHED—Fig. B

R-182	3/4"	2 1/4"	1/8"	2"	4 1/4"	.30
R-184	3/4"	2 1/4"	1/8"	4"	6 1/4"	.33
R-186	3/4"	2 1/4"	1/8"	6"	8 1/4"	.36
R-188	3/4"	2 1/4"	1/8"	8"	10 1/4"	.42
R-1810	3/4"	2 1/4"	1/8"	10"	12 1/4"	.48
R-5323	3/4"	2 1/4"	5/32"	3"	5 1/4"	.39
R-5324	3/4"	2 1/4"	5/32"	4"	6 1/4"	.39
R-5325	3/4"	2 1/4"	5/32"	5"	7 1/4"	.39
R-5328	3/4"	2 1/4"	5/32"	8"	10 1/4"	.48
R-142	1"	4"	1/4"	2"	6"	.57
R-144	1"	4"	1/4"	4"	8"	.60
R-146	1"	4"	1/4"	6"	10"	.63
R-148	1"	4"	1/4"	8"	12"	.69
R-1410	1"	4"	1/4"	10"	14"	.75

SQUARE BLADES, POLISHED—Fig. C

-144	1"	4"	1/4"	4"	8"	.69
-146	1"	4"	1/4"	6"	10"	.72
-148	1"	4"	1/4"	8"	12"	.81
-388	1 5/16"	4 3/8"	3/8"	8"	12 3/8"	1.14
-3812	1 5/16"	6"	3/8"	12"	18"	1.65
-3818	1 5/16"	6"	3/8"	18"	24"	1.80

PHILLIPS SCREWDRIVERS—Fig. D

Xcelite No.		Blade Length	Overall Length	Net Each
X-101	Phillips No. 1 Point	3"	6 3/8"	$0.63
X-108	Phillips No. 1 Point	6"	10"	.69
X-1020	Phillips No. 2 Point	10"	13 3/4"	1.08
X-102	Phillips No. 2 Point	4"	7 3/4"	.81
X-103	Phillips No. 3 Point	6"	10"	1.08
SX-101	Phillips No. 1 Point	Short Stubby Type		.60
SX-102	Phillips No. 2 Point	Short Stubby Type		.66

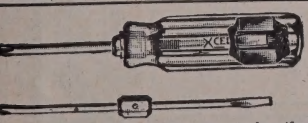
CLUTCH HEAD SCREWDRIVERS—Fig. E

wo different types offered. **Type G** for ordinary service work. **ype A,** however, will hold the screw by turning counter clockise. It is used in original assembly work.

Type G No.	Type A No.	Size	Blade Diam.	Blade Length	Net Each
G-183	A-183	1/8"	3/16"	3"	$0.72
G-5324	A-5324	5/32"	1/4"	4"	.79
G-3164	A-3164	3/16"	1/4"	4"	.79
G-146	A-146	1/4"	5/16"	6"	1.05
G-5166	A-5166	5/16"	3/8"	6"	1.29

TUBBY SCREWDRIVERS, POLISHED BLADES—Fig. F

Xcelite No.	Handle Diam.	Handle Length	Blade Diam.	Blade Length	Overall Length	Net Each
-3161	1 1/8"	1 1/2"	3/16"	1 1/4"	2 3/4"	$0.40
-141	1 3/8"	2"	1/4"	1 1/4"	3 1/4"	.46
-5161	1 3/8"	2"	5/16"	1 1/4"	3 1/4"	.46



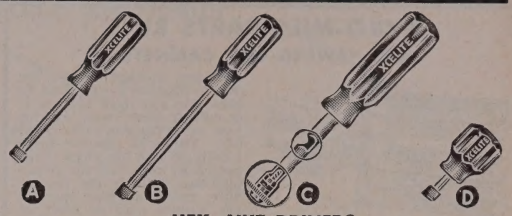
DUAL PURPOSE SCREWDRIVER KITS

arge (1 3/4" x 4 1/16") hollow to receive the dual-blade screwdriver nits. Screwdriver blades are made of a special quality electric urnace alloy steel.

lade No. RB-1—3/16" regular, No. 1 Phillips. Net Each.... 65c
lade No. RB-2—1/4" regular, No. 2 Phillips. Net Each.... 65c
lade No. RB-3—5/16" regular, No. 3 Phillips. Net Each.... 65c
landle No. 25—To fit any of above blades. Net Each.... 51c
ios. CR-1, CR-2, CR-3—Combination of blade and handle. (RB-1 and handle will be CR-1 combination). Net Ea. $1.14

PLASTIC ROLL KITS

lo. CK-2—Contains RB-1, RB-2 blades and No. 25 handle in plastic roll. Net Each..... $2.19
lo. CK-3—Contains RB-1, RB-2, RB-3 blades and No. 5 handle in plastic roll. Net Each..... $2.82



HEX. NUT DRIVERS

Xcelite No.	Figure	Nut Size	Handle	Overall Length	Net Each
6	A	3/16"	Black	6"	57c
7		7/32"	Brown		
8		1/4"	Red		
9		9/32"	Orange		
10		5/16"	Yellow		
11		11/32"	Green		
12		3/8"	Blue		
A6	B	3/16"	Black	9"	69c
A7		7/32"	Brown		
A8		1/4"	Red		
A9		9/32"	Orange		
A10		5/16"	Yellow		
A11		11/32"	Green		
A12		3/8"	Blue		
A14	B	7/16"	Brown	9"	90c
A16	B	1/2"	Red		
S-8	D	1/4"	Red	3 1/4"	48c
S-10		5/16"	Yellow		
S-12		3/8"	Blue		

HOLLOW SHAFT NUT DRIVERS—Fig. C

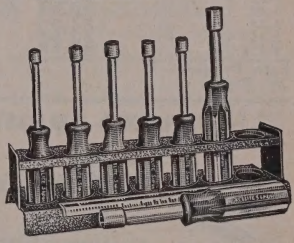
Xcelite No.	Nut Size	Handle	Depth of Hole	Overall Length	Net Each
HS-8	1/4"	Red	5"	6"	75c
HS-10	5/16"	Yellow			
HS-11	11/32"	Green			
HS-12	3/8"	Blue			
HS-14	7/16"	Brown	5"	7"	$0.84
HS-16	1/2"	Red			.87
HS-18	9/16"	Orange			.90
HS-20	5/8"	Yellow			1.05

HEX. NUT DRIVER SETS

SUPER NUT DRIVER SET No. 137

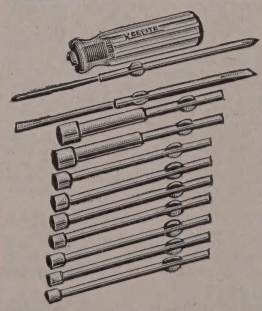
Size of socket indicated instantly by color of handle. Sockets fit the nuts snugly and are free of burrs. Sockets deep enough to handle two nuts at a time. Includes seven wrenches, Numbers 6, 8, 10, 11, 12, HS-16 and HS-18.

Set No. 137— Net Each..... $5.37



DE LUXE NUT DRIVER SET No. 127

Not illustrated, similar to No. 137 above with provisions for wall-mounting. Color-coded plastic handles to indicate size. Consists of seven wrenches, 3/16" to 3/8" in 1/32" steps. Handy metal holder included. **Set No. 127**—Net Each..... $4.71



No. 99PR MULTI-PURPOSE SET

This kit comes in a long-wearing plastic roll kit with an extra pocket. Each unit slips easily into universal handle and is held securely by the **Stay-Locked** fastener. All tools are **chrome plated.** Contains 99-1 multi-purpose handle; 99-82 reversible Phillips blade; 99-81 multi-purpose screwdriver blade; 3/16", 7/32", 1/4", 9/32", 5/16", 11/32", 3/8", 7/16", 1/2" nut drivers.

Kit No. 99PR— Net Each..... $7.17

TV FOCALIZER ADJUSTMENT SCREWDRIVERS

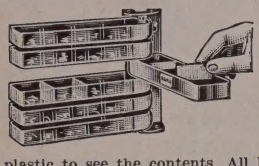
Xcelite beryllium-copper screwdrivers are non-magnetic—no disturbance to TV image. Better fatigue resistance than steel. Long 10" shanks to reach into chassis—wide tapered blade to fit adjustment screw snugly. For adjusting focalizer on TV sets. Blade 1/4" x 10", tip width 3/8", overall length 12". **No. BR1410FC Screwdriver**—Net Each..... $1.95

131X-54B

Parts Bins, Lamps, Tools

AKRO-MILS PARTS BINS

NEW "SWING-BIN" CABINETS

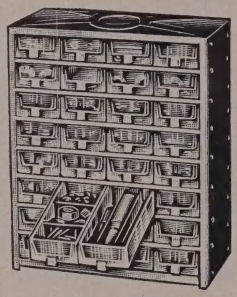


Efficient storage space for dozens of small items. Easy to attach to any desk wall, shelf or ceiling. Bins swing out for easy access to contents. Sturdily built of easy-to-clean plastic to last for years. Bins are easily removed for cleaning. Bin dividers are removable, providing four sizes of bin. Labels may be used, or just look through the clear plastic to see the contents. All bins are clear except the Ivory colored model. In addition to the bolt-on models (SC Series), "Swing-Bin" Cabinets are available in Pedestal Base Models (Series SP). Drawers are 2½" wide x 1⅛" deep x 9½" long. Metal bracket matches color of plastic.

Akro-Mils Number	Drawers No.	Drawers Color	Net Each	Akro-Mils Number	Drawers No.	Drawers Color	Net Each
SC-6-C	6	Clear	$ 3.98	SC-24	24	Clear	$14.50
SC-6-P	6	Pink	3.98	SC-36	36	Clear	21.98
SC-6-I	6	Ivory	3.98	SC-48	48	Clear	28.98
SC-6-B	6	Blue	3.98	PEDESTAL BASE MODELS			
SC-6-G	6	Green	3.98	SP-6	6	Clear	4.75
SC-6-Y	6	Yellow	3.98	SP-9	9	Clear	6.50
SC-12	12	Clear	7.50	SP-12	12	Clear	8.50
SC-18	18	Clear	10.98				

"HAZ-BIN, JUNIOR" CABINETS

Life-time guaranteed, crystal-clear plastic drawers. Strong, all-steel cabinet has individual drawer guides. Baked-on silver-gray hammer finish. Complete with index cards, removable lengthwise and crosswise drawer dividers and rubber feet. Drawer size for all models; 2¾" wide, 1⅛" deep, 5⅞" long. Movable dividers separate each drawer into 3 compartments.



Model	No. of Drawers	Net Ea.
J-8	8	$4.25
J-12	12	5.95
J-16	16	6.95
J-20	20	7.95
J-24	24	9.95
J-32	32	12.95
J-48	48	20.95
J-64	64	24.95
J-96	96	42.95
J-128	128	55.95

Extra Drawers—Net Each **24c**

NEW LUXO ADJUSTABLE LAMP

MODEL L-1

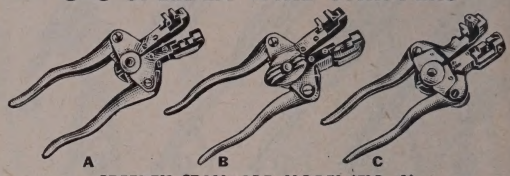
A newly designed lamp that provides the ideal in glare-free illumination for the office, shop or home. Through an efficient arrangement of arms and springs, it may be adjusted instantly to any position and will stay there. The shade always remains at the same angle to the bench or floor. May be swung from straight up down to within a few inches of the floor and through a 360° arc. Arms extend to 45". This Scandinavian made lamp is famous for its adaptability to almost any lightning requirement. Swivel joints are spring loaded at a tension adjustable by a knurled knob. The porcelainized shade provides fullest reflection from the 40 or 60-watt bulb. Shade is vented at the top for heat dissipation. Off-On switch conveniently located on top of shade. Available in choice of Ivory, Black, Mahogany, Gray or Green. Illustrated with bracket "A". Usable also with brackets B, C, D or Floor Stand T (see below). U/L Approved. Shipping Weight, 5 lbs.

Luxo Model L-1 Lamp—Complete with one bracket A, B or C. Net **$16.46**
Luxo Model L-1 Lamp—Complete with bracket D. Net. **$17.40**
Luxo Model L-1 Lamp—Complete with movable, tiltproof floor stand "T" in Dove Gray or Ivory. Net Each **$34.46**

BRACKETS

Bracket A—Clamps lamp to edge of table, etc. Net Ea... **$1.69**
Bracket B—Screws to wall or partition to support the lamp horizontally. Net Each **$1.69**
Bracket C—Screws to work bench, etc., for permanent mounting. Deep throat insures stability. Net Each **$1.69**
Bracket D—Fitted with adjusting knob, screws to drafting table or slanted facility. Net Each **$2.63**
Stand T—Heavy base sets on ball bearing casters. Center shaft is height-adjustable. Moves easily. Net Each **$19.69**

G-C SPEEDEX WIRE STRIPPERS



SPEEDEX STANDARD MODEL (FIG. A)

Works on 90% of all stripping jobs. Strips wires No. 8 to No. 30. Blades are interchangeable; hardened and ground to razor sharp edges. Handles smooth and narrow for ease of handling.

SPEEDEX AUTOMATIC MODEL (FIG. B)

Equipped with "Trig-O-Matic" Stay-Open feature, these strippers are especially suited for stripping fine and stranded wires. Stay-Open feature keeps wires from being crushed.

SPEEDEX SPEED-O-MATIC MODEL (FIG. C)

Latest model featuring "Fully Automatic Delayed Return Action" to prevent crushing wires. Combines features of all Speedex wire strippers.

Equipped With Blades to Handle Wire Sizes	Standard Model	Standard Net	Trig-O-Matic Model	Trig-O-Matic Net	Speed-O-Matic Model	Speed-O-Matic Net
12 to 20	733	$3.95	744	$4.95	766	$4.95
14 to 30	733-A		744-A		766-A	
10 to 18	733-B		744-B		766-B	
8 to 10	733-C		744-C		766-C	
16, 18, 20, 22	733-D		744-D		766-D	
14, 16, 18	733-E		744-E		766-E	
10, 12, 14	733-F		744-F		766-F	
No. 18 POSJ or parallel wire	733-G	$3.95	744-G	$4.95	766-G	$4.95
300-ohm TV and FM Twin line	733-H	$3.95	744-H	$4.95	766-H	$4.95
10, 12, 14, 16, 18, 20, 22	733-I	$3.95	744-I	$4.95	766-I	$4.95
10 to 20	.....		.....		766-M	
Straight Cutter	.....		.....		766-N	

No. 733-K Kit—Contains Standard Stripper and 7 interchangeable blades in hinged cover metal box. Net Each.. **$9.36**
No. 744-K Kit—Same as above, but with Automatic Stripper. Net Each **$10.35**
No. 766-K Kit—With Speed-O-Matic Stripper. Net Ea.. **10.35**

G-C TWEEZERS AND KIT

For the shop or laboratory to pick up and examine small parts, start screws and nuts, to get in hard-to-get spots, stringing dial cord, fastening springs, etc.
No. 7950—Tweezer Kit. Beautiful leatherette case and one each tweezers described below. Net Each. **$2.13**
No. 7946—6½" Self-closing Tweezer. Opens when squeezed. Serrated, blunt points. Net Each **63c**
No. 7947—6½" Heavy-duty type with slide lock feature. Holds wires or parts tight like an extra finger. Serrated, blunt points. Net Each **78c**
No. 7948—4½" Precision Tweezer. Narrow pointed ends for delicate work. Net Each **36c**

GREENLEE CHASSIS PUNCHES

Greenlee Series 730 Chassis Punches cut clean, accurate holes in radio chassis for connectors, tube sockets and other receptacles. Operates simply with ordinary wrench for drive power. No reaming or filing necessary, the hole is smooth and perfect. Thirteen sizes from one-half inch to two and one-quarter inches. Will cut holes in chassis up to one-eight inch thick. Packed in metal box. Average shipping weight 1½ lbs.

Size	Cap Screw Hole Size	Net Each	Size	Cap Screw Hole Size	Net Each
½"	¼"	$2.16	1 5/16"	⅜"	$2.47
5/8"	¼"		1 7/16"	⅜"	
¾"	⅜"		1¼"	⅜"	
⅞"	⅜"		1⅜"	⅜"	2.83
1"	⅜"	2.34	1½"	⅜"	3.19
			1⅝"	¾"X2¼"	3.69
1 1/16"	⅜"	2.47	1¾"	¾"X2¼"	4.18
1⅛"	⅜"		1⅞"	¾"x3"	5.23
			2"	¾"x3"	5.62
			2¼"	¾"	6.12

Greenlee Series 731 Square Radio Chassis Punches easily cut any square or oblong shapes to exact size needed.

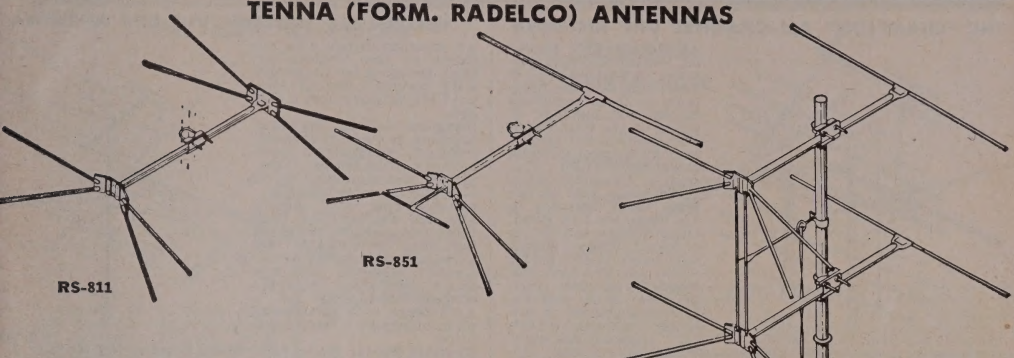
Size	Net Each	Size	Net Each	Size	Net Each
⅝"	$3.33	¾"	$3.87	1"	$4.50

Series 732 Chassis "Key" Punches—Cut slots for keyed tube socket.
Size 1-5/16"—Complete **$3.73**
Size 1-11/64"—Complete **4.00**
Size 1-17/64"—Complete **4.27**
Size 1-21/64"—Complete **4.50**
No. 733—Radio Chassis "D" Punch—"D"-shaped openings for hi-frequency miniature tube sockets. Available in the ½" size. Drive screw fits into ⅜" drilled hole. Net Each **$3.51**
⅝" Size, Net Each **3.73**

571-55A

TV Antennas, Lead, Accessories

TENNA (FORM. RADELCO) ANTENNAS



RS-800 SERIES CONICAL ANTENNAS

ALL ELEMENTS REINFORCED WITH WOOD DOWELS TO ELIMINATE VIBRATION AND BREAKAGE

he RS-800 Series of antennas are preassembled with wing nuts assure quick, easy installation. They are made of the finest aterials and designed for trouble-free performance. All elements e tight butt seam aluminum tubing reinforced with wood dowels eliminate vibration and breakage. Ends are crimp closed to event whistling. The cross boom is electro-galvanized steel ith riveted clamp fittings. U-bolt mounting will accommodate to a 1½″ mast. All steel fittings are of heavy gauge steel with ick zinc-plating.

enna Model RS-801—(Illustrated as part of Kit RK-901) -type conical with straight reflector. Net Each..... **$2.91**

enna Model RS-811—X-type conical with 4 front ements and 4 reflectors. Net Each..... **$3.54**

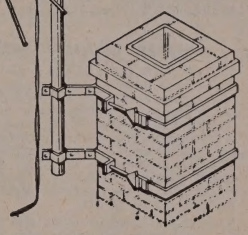
enna Model RS-812—Double stacked array, con- ructed same as RS-811 and including 2 jumper bars. Net **$7.68**

enna Model RS-851—X-type conical with straight flector and includes Hi-channel Director Bar. Net Each. **$3.36**

enna Model RS-852—Double stacked array, con- ructed same as RS-851 and incl. 2 jumper bars. Net.... **$7.23**

"READY TO INSTALL" ANTENNA KITS

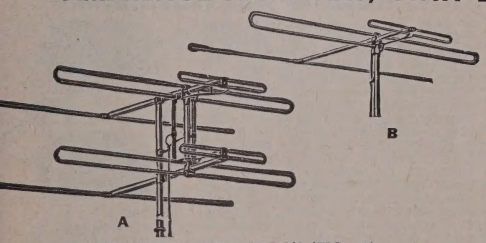
Tenna conical antenna kits are preassembled for quick, easy installation. Mounting plates, U-bolts and saddle assembly are attached to boom before shipping. They are made of finest materials and designed for trouble-free performance. All elements are tight butt seam aluminum tubing, reinforced with wood dowels. U-bolt mounting takes up to 1½″ mast. All steel fittings are of heavy gauge steel with thick zinc plating.



Tenna Model RK-901 Kit—Consists of RS-801 Antenna, 5-ft. mast, R-105 chimney mount, R-102 standoff, 50-ft. of 300 ohm line and 4 wood screw-eye stand-offs. Net Each..... **$6.59**

Model RK-902 Kit—Consists of RS-802 Antenna double stack with jumper bars, two 5-ft. mast sections, R-105 chimney mount, R-102 standoff, R-112 guy ring, 50 ft. of 300 ohm line and 4 wood screw-eye standoffs. Net Each..... **$11.58**

AMPHENOL ANTENNAS, TWIN LEAD, CONNECTORS, ACCESSORIES



INLINE STACKED ARRAY (FIG. A)

ach bay embodies same construction and performance of the 4-005 antenna. Stacking provides 2 db additional gain over entire VHF band. Includes 2 universal mounting brackets, all necessary hardware and two 5′ mast sections. **$21.00**

Amphenol Model 114-302—Shpg. Wt., 15 lbs. Net Ea.

Amphenol Model 114-322—Above, with 100′ Twin Lead. Net..... **$23.10**

Amphenol Model 114-314—114-302 less mast and accessories. Net..... **$17.40**

Amphenol Model 114-324—114-314 with 100′ Twin Lead. Net..... **$19.50**

2-BAND "INLINE" ANTENNA (FIG. B)

Covers all VHF channels. Wide, single forward lobe. Excellent front-to-back and side ratio. All-aluminum; quick-up assembly; ¾″ steel conduit mast. With mast, guy ring, mounting bracket, stand-off insulators and 75′ of Twin Lead. 7 lbs. **$11.70**

Amphenol Model 114-005—Net Each..... **$8.10**

Amphenol Model 114-009—Same, less Twin Lead. Net **$10.20**

Amphenol Model 114-040—Includes only mounting clamp. Net Each..... **$8.10**

300-OHM TUBULAR TWIN LEAD

Only with Amphenol 14-271 Tubular Twin Lead—where the electrical field is contained within a protected area—can you satisfactorily eliminate the impedance changes which affect all flat lead-in transmission lines after exposure to the elements.

14-271 TUBULAR TWIN LEAD

Length	Package	Net Each
100 feet	Carton	$ 3.84
500 feet	Spool	18.00
500 feet	Carton	16.50
1000 feet	Spool	34.50

4-080 75-OHM FLAT TWIN LEAD

e as a low impedance receiving line.

Length	Package	Net Each
500 ft.	Spool	$ 9.90
1000 ft.	Spool	18.90

300-OHM FLAT TWIN LEAD

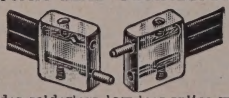
Virgin brown pigmented polyethylene dielectric assures minimum signal loss and a more constant impedance over the exceptionally long life of the Twin Lead. Remains flexible at −70° and resists corrosion from salty sea air. Flat Twin Lead is designed for use in VHF and FM applications. For UHF, order Tubular Twin Lead. 60 mil web thickness.

14-056 FLAT TWIN LEAD

Length	Package	Net Each
75 feet*	Carton	$ 1.80
100 feet**	Carton	2.19
500 feet	Spool	9.75
1000 feet	Spool	19.50

*No. 184-801. **No. 184-802.

TWIN LEAD CONNECTOR



Provides solderless, low-loss splice without impedance change. Design prevents reversal of lead. Use in pairs.

Amph. Model 80-850. Net..... **18c**

LIGHTNING ARRESTER

Universal Lightning Arrester can be used with flat, tubular or open wire twin lead. New design provides positive protection for any antenna installation. Approved by Underwriters' Laboratories, Inc.

Amphenol Model 114-328—Lightning Arrester only. Net Each..... **90c**

Amphenol Model 114-329—Lightning Arrester with pipe mounting strap. Net Each..... **96c**

HIGH PASS FILTER

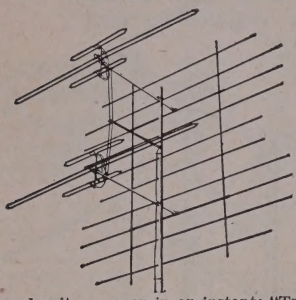
Filter eliminates most TV interference by passing only signals at frequencies above 50 mc. No spurious signals from industrial machinery or diathermy equipment are passed to interfere with television picture clarity. Also can be used effectively for FM.

Amphenol Model 114-330—Net.. **$3.27**

507-55A

Channel Master UHF-VHF Antennas

THE "CHAMPION" ALL-CHANNEL VHF ANTENNA



All-channel VHF antenna. Low-band dipole provides exceptional Low Band gain and also functions as three half-wave dipoles tied together, in phase, on the High Band. The result is the highest gain all-channel antenna ever developed. The stacked Champion gives 11 to 13 db gain on the High Band, and 6½ to 7½ db on the Low Band. Other features include use of folded dipoles throughout; screen-type reflector which provides high uniform gain on every channel from 2–13; scissors-type arrangement on collapsed screen which makes it pop open in an instant; "Tri-Pole" assembly has automatic Spring Lock action which permits all dipoles to snap permanently into place without wing nuts or other hardware. Ready for mast in 90 seconds. All-aluminum, light-weight, durable and non-corrosive.

Channel Master 325—Net Each..... **$12.50**
Model 325-2—Two-Bay array. Net Each..... **$25.42**

"SUPER CHAMP" NEW VHF-UHF ANTENNA

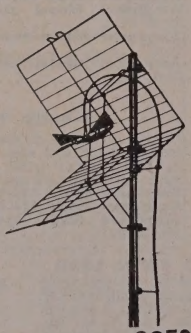
The SUPER CHAMP is a new improved version of the stacked Champion (above) and provides from 1½ to 3 db additional Low Band gain and 1 db additional High Band gain over the Champion. Improved performance is obtained by wider spacing of the Tri-Pole assemblies of the 2-bay Champion and by the addition of a third reflecting screen between the antennas. The antennas are also joined with a newly-designed half-wave stacking harness. The Tri-Pole assemblies, therefore, are spaced at half-wave on the Low Band, adding considerable gain on channels 2 through 6. High Band gain is also greatly improved. On UHF the Super Champ delivers up to 12 db.

The Super Champ is of the same general construction as the Champ above—all aluminum, lightweight, durable non-corrosive. Easily assembled and erected. Requires 8 foot mast. Furnished Complete. Less mast.

Channel Master Model 325-6—Super Champ—Net Ea. **$32.50**

SUPER CHAMP CONVERSION KIT. For converting standard 2-bay Champions into SUPER CHAMPS. Consists of a reflecting screen assembly and the specially designed stacking harness.
Channel Master No. 325-7—Conversion Kit. Net Each..... **$8.75**

UHF CORNER REFLECTOR



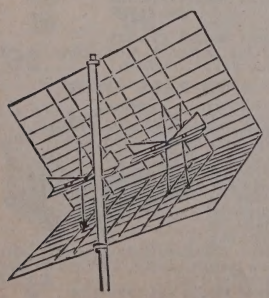
New UHF Corner Reflector featuring optional 2-way mounting—can be mounted either behind the mast or in front of the mast, depending on installation conditions. Each antenna contains all necessary hardware and braces to permit both popular types of mounting. Both mounting styles based on two structural shapes—the triangle and the truss. Each provides rigid, vibration-free performance.

This antenna can be readily adapted to any kind of UHF installation, with or without VHF. It can be mounted on masts, towers, structural members, etc. Installs instantly, screen swings open like a book, and the dipole assembly snaps into place and automatically fixes the screen at the angle necessary for maximum signal strength.

Has high gain ranging up to 12½ db across the entire UHF band. Directivity patterns are sharp. Complete ready to install.

Channel Master No. 409—Corner Reflector. Net Each..... **$3.50**

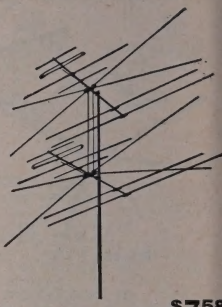
TWIN CORNER REFLECTOR



Two standard reflectors stacked side by side into one simple structure. Provides a greatly increased gain over the single reflector for fringe areas. The gain pattern is a rising curve over the UHF band. The twin corner reflector can also be stacked. The stacked twin reflector has a gain of up to 17½ db, outperforming most stacked yagis. Uses new impedance-matching, 2-stage stacking system.

Channel Master No. 406—Twin Corner Reflector. Net..... **$6.99**

THE "GLOBE TROTTER" VHF-UHF ANTENNA



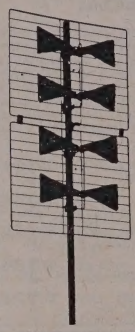
An excellent fringe area antenna of the Conical-Yagi type. Designed for all-channel VHF coverage, and all-channel UHF primary area coverage.

Complete antenna, including brackets, is made of weather-resistant, lightweight, hard-temper aluminum. Completely preassembled. Conical elements have swing-lock action—swing open quickly and lock into position. High band yagi elements swing out and snap permanently into position without hardware. Conical elements are also dowel reinforced for extra strength and rigidity.

An antenna with outstanding performance at a remarkable price.

Channel Master Model 321—Globe Trotter. Net Each.. **$7.58**
Channel Master Model 321-2—Same as above but 2-bay stacked including connecting rods. Net Each..... **$15.58**

MULTI-BOW UHF ANTENNA

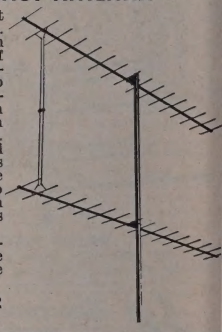


A 4-bay, bow tie and screen, highly efficient fringe area UHF antenna. Incorporates a number of engineering advances which contribute to its outstanding performance.

All four bow ties joined together with a special constant-phase connecting harness which provides uniform current and phase distribution by locating the feed points at an equal distance from each pair of antenna terminals. This assures single-lobe performance over the entire UHF band. The Multi-Bow has aluminum sheet dipoles, which give the antenna outstanding Broad Band characteristics and mechanical strength. The antenna has "Free-Space" terminals, and all harness connections are riveted to the dipoles for positive electrical contact. Completely preassembled—heavy-duty screen are hinged for proper spacing, and swing open for assembly. This antenna provides excellent gain over the entire UHF band, providing up to 13½ db. Also has a high front-to-back ratio.

Channel Master No. 410-4. Multi-Bow. Net Each..... **$6.67**

"SWEET 16" UHF YAGI ANTENNA

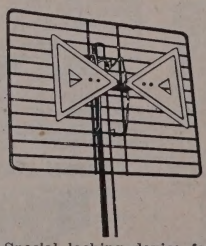


A new, most powerful 16-element UHF fringe area Yagi antenna. Custom-designed to fit the reception problems of any specific area. Of Delta-Weld construction, the elements are permanently welded to the crossarm and has a Delta-matched dipole for good 300 ohm match across all channels for which any particular model is designed. The "Sweet 16" is a wide band Yagi that can be designed to cover as many as 21 different channels. The antenna has an average gain of 11 db single and 14 db stacked. This gain is exceeded at certain frequencies and in different models.

All elements except dipole are welded in position at the factory. The antenna is ready for immediate installation.

Channel Master No. 420— Sweet 16. Net Each..... **$4.92**

BOW-FLECTOR UHF ANTENNA



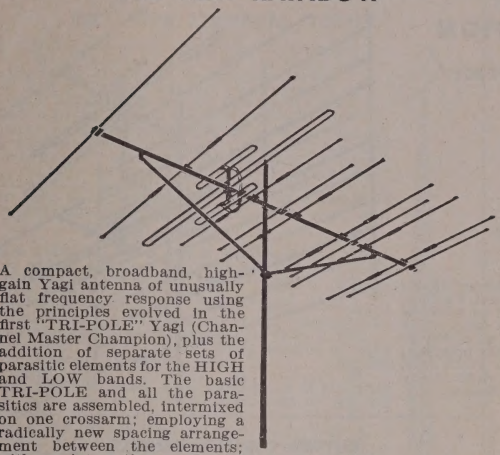
The Bow-Flector is a broad-band, high gain UHF antenna. It provides a gain of up to 10 db single, and up to 12 db stacked. It features an enlarged reflecting screen providing 53% more reflecting area than in previous models. This makes for a higher, flatter gain. When Bow-Flectors are stacked the full-wave spacing feature provides additional high gain. A third feature is the use of two-stage stacking transformers which provide broad-band impedance matching. This permits the antenna to deliver high stacking gain over the entire UHF band. Easy to install. Snap the bow-tie onto the screen in just 20 seconds, then fasten the entire assembly to the mast. Special locking device fastens antenna to mast without using U-bolts; prevents twisting and vibration that cause flutter. Free space terminals prevent dirt, ice or rain from accumulating between feed points shorting out the signal.

Channel Master No. 408 Bow-Flector—Net Each..... **$3.4**

44X-54C

Channel Master UHF-VHF Antennas

THE NEW RAINBOW



A compact, broadband, high-gain Yagi antenna of unusually flat frequency response using the principles evolved in the first "TRI-POLE" Yagi (Channel Master Champion), plus the addition of separate sets of parasitic elements for the HIGH and LOW bands. The basic TRI-POLE and all the parasitics are assembled, intermixed on one crossarm; employing a radically new spacing arrangement between the elements; with no interaction or loss of efficiency over the entire VHF TV spectrum. This antenna has characteristics especially desirable in the present field of black and white TV and in the rising field of color TV where the fringe area begins much closer in to the TV transmitter. Features 100% aluminum construction. Seamless tubing throughout. Two models available. **No. 330** for near fringe; **No. 331** for fringe and super-fringe.

Channel-Master No.		Gain over 1-Bay "Champion" (DB) Channel 2	4	6	8	10	13	Gain over 2-Bay "Champion" (DB) Channel 2	4	6	8	10	13	Net Each
330	1-Bay	0	0	2	2.5	0.5	2.5							$14.16
330-2	2-Bay							1.5	1.5	2	0.5	0	1.5	29.16
331	1-Bay	1	1.5	3.5	3	1.5	4.5							22.50
331-2	2-Bay							2	3	4	1	2	3.5	45.42

NEW SELECTRONIC COUPLING SYSTEM

A

B

Consists of a series of specially designed single channel filters or "couplers" . . . which permit a number of antennas to be tied to one transmission line. This is the first method that permits you to tie together two or more separate antennas operating on the SAME BAND. Generally speaking, one filter is used for each channel to be received. When the TV set is tuned to a certain channel, only the signals picked up by the antenna for that channel will be fed down to the set. All other antennas are automatically isolated.

WHEN THIS SYSTEM CAN BE USED

The SelecTenna System is recommended where it is desirable to use separate antennas to obtain reception under the following conditions: (1) Where stations lie in different directions. (2) Where individual Yagis are used to receive two or more channels lying in the same direction. (3) Where one or more single-channel Yagis are used to supplement a Broad Band antenna.

In other words, the SelecTenna System can be used in most areas currently using rotators, multiple leads with switching systems and omnidirectional antenna types.

NOTE: The SelecTenna System cannot be used with single channel Yagis operating on adjacent channels (except 4 and 5).

NUMBER OF COUPLERS REQUIRED

Two kinds of couplers are used in this system. (1) Antenna couplers for joining two or more antennas operating on the same band (**Fig. A**). (2) High-low coupler for joining antennas operating on both VHF bands (**Fig. B**). One ANTENNA coupler is required for each channel received. In installations covering both VHF bands, the signals are fed from the ANTENNA couplers to the HIGH-LOW coupler. However, where only a single antenna is being used on one of the VHF bands, the lead from that antenna may be fed directly into the HIGH-LOW coupler. Detailed instructions are furnished with the couplers.

NO SWITCH—FULLY AUTOMATIC

You just tune the set. The SelecTenna System selects the right antenna and feeds the signal down to the set instantly.

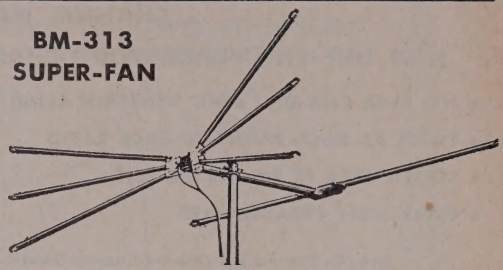
INSTALLATION

The couplers snap together easily and the interlocked stack is quickly mounted on the mast. **$3.25**

Any model listed below—Net Each . . . . . .

Chan. No.	Description	Chan. No.	Description
0001	Hi-Lo Coupler	0008	For Channel 8
0002	For Channel 2	0009	For Channel 9
0003	For Channel 3	0010	For Channel 10
0004	For Channel 4	0011	For Channel 11
0005	For Channel 5	0012	For Channel 12
0006	For Channel 6	0013	For Channel 13
0007	For Channel 7	....	.....

BM-313 SUPER-FAN

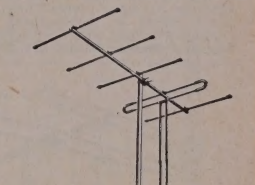


BM-313X2 Stacked Super-Fan is superior to all conventional conical types. One-quarter wave spacing at low band mid-frequency. Aluminum elements and crossarm, completely preassembled. Narrow lobe makes use in conjunction with rotaton excellent.

BM-313X4 Double Stacked Super-Fan is the most sensitive broad band antenna developed to date. Carefully engineered matching sections give full advantage of stacking arrangement.

Model	Low Band Gain	High Band Gain	Recommended For	Net Each
BM-313	2DB-4DB	5DB-6½DB	City & Sub.	$6.25
BM-3132	5DB-7DB	8DB-11DB	Fringe Areas	13.33
BM-3134	7½DB-9DB	10½DB-11¾DB	Ultra Fringe	28.91

5 ELEMENT "Z-MATCH" YAGIS



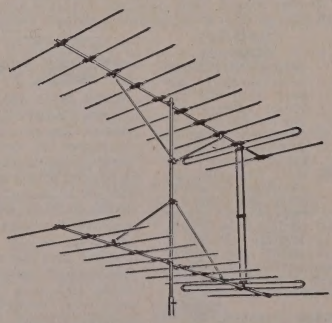
Adjustable impedance, perfect match to 300 ohm line for both single and stacked yagis.

100% gain in stacking; no extra stacking bars required. Impedance adjustable to match 72 ohm line closer than ordinary Yagis. Longer cross arm; .6 wave lengths on low band; .8 wave lengths on high band . . . giving higher gain, narrower lobe and better rear rejection. The new Z-match system automatically provides for lowering the impedance of each Yagi when preparing it for stacking.

A 600-ohm, 3-conductor folded dipole is used on the single Yagi to produce a perfect 300-ohm impedance. In stacking, the center bar is taken out, which lowers the impedance to 200 ohms and leaves a pair of ⅜" rods one-half wave long. These are then used as connecting rods and the result is a stacked Yagi which perfectly matches 300 ohm line. A lengthened crossarm provides perfect 300 ohm impedance for the **single Yagi,** resulting in higher gain for the **Z-match single Yagi.** No extra connecting rods are needed.

Model No.	Channel	Net Each	Model No.	Channel	Net Each	Model No.	Channel	Net Each
602	2	$10.59	606	6	$10.00	610	10	$4.59
603	3	10.59	607	7	4.59	611	11	4.59
604	4	10.00	608	8	4.59	612	12	4.59
605	5	10.00	609	9	4.59	613	13	4.59

10 ELEMENT "Z-MATCH" YAGIS



The Big 10—Each of the 10 elements are precision-cut and spaced on the longest crossarm ever used on a TV antenna—1 full wave length on the low band, 1.4 wave lengths on the high band.

The single bay BIG 10, gives over 30% more gain than any 8 element Yagi, and substantially more than any other 10 element Yagi. And because this antenna uses the exclusive Z-match system, stacking produces 78% additional gain —more stacking gain than any other long Yagi. No stacking bars—completely preassembled. Crossboom comes in 2 preassembled sections, with one swaged end. Sections easily fitted together and locked in place. Low band boom is braced to prevent bounce. **Gain:** 12db single antenna; 14½db, stacked array.

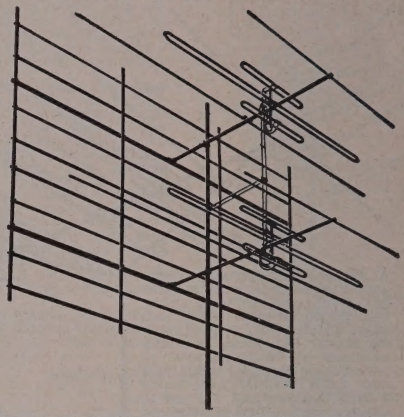
Model No.	Channel	Net Each	Model No.	Channel	Net Each	Model No.	Channel	Net Ea.
1022	2	$20.00	1066	6	$16.25	1010	10	$8.33
1033	3	20.00	1007	7	8.33	1011	11	8.33
1044	4	17.92	1008	8	8.33	1012	12	8.33
1055	5	17.92	1009	9	8.33	1013	13	8.33

UHF-VHF Antennas, Couplers

CHANNEL MASTER ANTENNAS

NEW UHF-VHF "BACKSTOP" CHAMPION

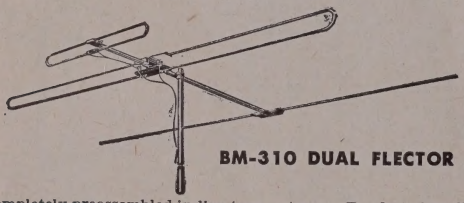
- NO REAR PICK-UP
- NO VENETIAN BLIND EFFECT
- TWICE AS MUCH FRONT-TO-BACK RATIO
- SCREEN AREA IS 70 SQUARE FEET
- COMPLETELY PREASSEMBLED



Stops Co-Channel and Adjacent-Channel Interference Caused by Rear Signal Pick-Up.

Today, throughout the country, there are many low band VHF stations on the air only 190 miles from another station operating on the same channel. Furthermore, the increasing use of high power transmitters has presented us with the serious problem of co-channel and adjacent-channel interference in many areas of the country. The directivity of a television receiving antenna is its ability to receive or reject signals from different directions. This data is generally presented on a horizontal polar diagram which can be presented either as a VOLTAGE or as a POWER RATIO. Therefore, the higher the front-to-back ratio of any given antenna, the better will be the rejection of co-channel interference.

The new Backstop gives twice as much front-to-back ratio as a 10-element Yagi. It contains the largest screen area of any antenna: 70 square feet. There is no rear pick-up, no "venetian blind" effect. It incorporates the basic Champion design, including Tri-Pole, with additional elements.
Channel Master Model 326-2-Backstop—Net Each.. **$38.34**

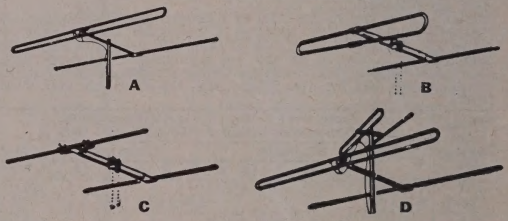


BM-310 DUAL FLECTOR

A completely preassembled in-line type antenna. Ready to install in one minute. Low band folded dipole acts as reflector on high band. Covers all 12 channels with excellent directivity. Also available in stacked version. All Antennas Less Mast.

CM Model	Low Band Gain	High Band Gain	Recom. For	Net Each
BM310	1.2DB-2.8DB	1.8DB-4.3DB	City & suburb	$6.00
BM310X2	0 DB-4.8DB	5.3DB-8DB	Fringe area	13.00

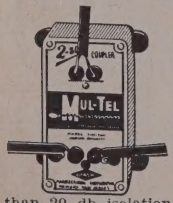
BUTTED TUBING MODELS



Features ⅜" butted tubing and Swing Lock action. All are also available in seamless tubing.
Low Band Fold-Flector Model 122—(Fig. A) Matches 300-ohm line. Excellent for medium signal areas. Net Each..... **$2.92**
Hi Band Fold-Flector Model 222—(Fig. B) Converts low band antenna to all-channel array. Installs instantly. Net Each **$1.16**
Hi-Lo Fold-Flector Model 322—(Fig. D) Completely preassembled. Each section may be individually oriented. Fits all masts to 1½". All-channel reception. Matches 72 or 300 ohm. Net.. **$4.25**
Low Band Di-Flector Model 123—(Fig. C) For primary areas. Combination straight dipole and reflector. Excellent for all-channel coverage in strong signal areas. Net Each..... **$2.33**

BRACH MUL-TEL ANTENNA SYSTEMS

These systems allow operation of 2 to 16 receivers from a single antenna. The basic Mul-Tel units divide the antenna signal into 2 or 4 equal parts with a maximum of 6 db attenuation between output and any input. Isolation between outlets is 16 db to reduce oscillator re-radiation interference. Units also act as high-pass filters to attenuate all interference below TV signal frequency. Built in sturdy cast aluminum boxes with mounting holes. These systems are ideal for two-family houses, small apartment houses and receiver dealers' display rooms. They consume no power and require no maintenance. To provide more than four outlets, simply connect units in cascade.

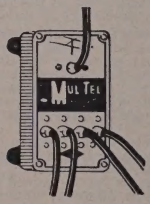


TWO-SET COUPLER

Model M-300-300—Receives its signals from one antenna using either 75 or 300 ohm down-lead. Signals filtered off IF interference and divided into two outputs circuited to either 75 or 300 ohm TV receivers. More than 20 db isolation to local oscillator, complete isolation to loading effects. A defective connection to either receiver will not effect the operation of the other. Functions on the "Berger Effect" principle. Complete with VHF pin plugs. Weight, 5 lbs.
Brach Model M-300-300—Net Ea. **$6.45**
Brach Model 477—Provides two 300 ohm outputs from one 300 ohm lead. Brown bakelite housing. Net Each..... **$3.15**

MATCHING TRANSFORMER

Model M-72-300A—With high pass filter action. Designed to be a perfect termination at Channels 2 to 13, but offers a serious mismatch to diathermy and shortwave interference transmissions in the IF band. A coaxial fitting is provided with the transformer to make a low loss connection to RG59/U. The transformer has negligible loss over the complete TV band and a voltage gain of 2:1. Recommended for all coaxial line installations with individual antennas in noisy and heavy interference areas and as a TV set matching transformer in conjunction with the Brach system. Weight, 1 lb.
Brach Model M-72-300A—Net Each..... **$2.22**

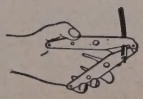


FOUR-SET COUPLERS

Model 72-72—Connects one 72 ohm antenna to four 72 ohm receivers or to additional Mul-Tel couplers. Complete with 5 Jiffy High-Q plugs for quick attachment to coaxial cable and 3 dummy plugs containing load resistor for unused output channels. **Model 300-72**—Same, except connects 300 ohm antenna to four 72 ohm receivers. Complete with 4 Jiffy plugs, 2 VHF Pin Plugs and 3 dummy plugs. Weight, 5 lbs, either model.
Either Model, Net Each..... **$7.05**

WALL PLATE

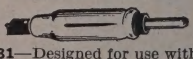
Model 433—For permanent installations with concealed or surface wiring. Provides a professional finish when used with single gang surface wire mold or flush wall box.
Brach Model 433—Net. **60c**



CRIMPING TOOL

Model 424—Used to crimp the Brach Jiffy Hi-Q Plugs to coaxial cable to make quick connections. Weight 6 oz.
Net Each.... **45c**

JIFFY HI-Q PLUG



Model 431—Designed for use with coaxial cable to assure high Q and low loss.
Net Each..... **15c**

COAXIAL SPLICE

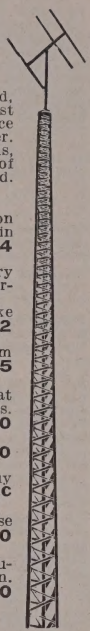
Model 425—For splicing coaxial cable neatly and efficiently in antenna system work. Net Each..... **12c**

702-55A

Television Towers and Accessories

ALPRODCO TOWERS

"W" TYPE STANDARD TOWER



This Alprodco tower will carry a vertical static load of 300 lbs. at a height of 120 ft. The tower has amazingly low weight of 1 lb. per foot (100 feet of tower weighs 100 lbs.) and low wind resistance of 6 lbs. per foot in 100mph wind velocity. All tower sections constructed with aluminum aircraft rivets. Requires guying every 30 feet with 3/16" galvanized, 7-strand steel wire or equivalent. Guy loosely with first guy station 6 ft. from top of the tower, and at a distance out from the base equal to ½ the height of the tower. Actual tests prove ability to withstand 100mph winds, when used as a self-supported tower at a height of 18 ft. with antenna rated at 30 lb. wind thrust load.

COMPONENTS

Model T-6W Standard Tower Section—6 ft. section folded flat for shipment, assembly can be completed in 5 minutes, ⅔ assembled. Rivets supplied Weight, 6 lbs. Net Each..... **$7.74**

Model AT-6W Standard Tower Section—Factory assembled 6 ft. sections. Made of spring-tempered aircraft aluminum alloys. Measures 11¼" on each side. Steps built in. Sections can be bolted together to make any height to 120 ft. Weight, 6 lbs. Net Each..... **$8.52**

Model MK-1W Mast Kit—Consists of 3 top trim angles and 2 sets of adjustable mast clamps. Net Each..... **$1.55**

Model B-1W Hinged Mast Base—A low cost base that can be used on vertical, horizontal or sloping surfaces. Hinged on one side to permit raising of tower. Net Each..... **$1.70**

Model B-1C Base Cap—Used when installing tower as a vertical radiator. Net Each..... **$1.70**

Model GB-1 Guy Bracket—Order three for each guy station (see tower description above). Fits angular leg of tower. Net Each..... **9c**

Model S-3W (3-in.) Standoff Support Bracket—Use as wall mount stationary tie-in. Net Each..... **$1.60**

Model S-5 (5-in.) Standoff Support Bracket—A popular standoff bracket among set owners and servicemen. Used when tying tower to eave of house or wall mount. Net Each..... **$1.60**

STEEL TOWERS

Made of special steel with high tensile and yield strength to attain "bridge-like" construction. Extra-heavy coating of pure zinc gives a bright satin finish that lasts for years. Tubular cross braces give maximum strength and lowest wind resistance. Comes complete with steps at no additional cost. Assembled or "knocked down". Accessories above may be used with these Towers.

STANDARD STEEL TOWER

Part No.	Description	Weight	Net Ea.
SAT-6W	Standard 6' Long, 11¼" Steel Tower (assembled), Complete with Steps.	13¼ lbs.	$4.75

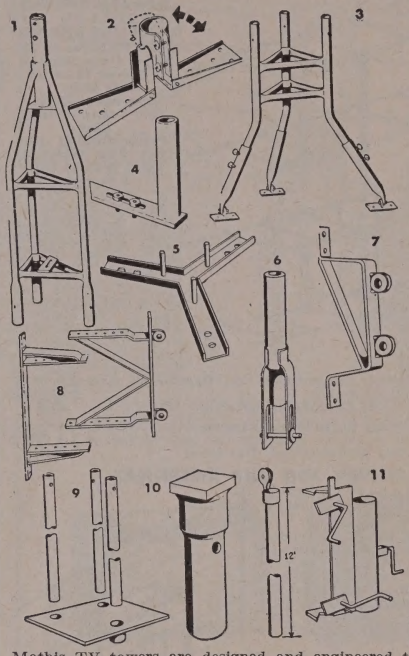
RADION MODEL FSM-5000 UHF-VHF BATTERY PORTABLE FIELD STRENGTH METER

- TRULY PORTABLE METER
- CONTINUOUS 1 KNOB TUNING
- CHECK NEW AND OLD INSTALLATIONS
- LOCATE SOURCE OF TV INTERFERENCE
- CHECK RECEIVER OSCILLATOR RADIATION

An excellent lightweight, accurate field strength meter with continuous 1 knob tuning covering channels 2 through 83 and also the FM bands. Completely self contained—no separate power pack required. Battery powered—uses standard low-cost A and B batteries. Direct reading in Microvolts for more accurate installations. Sensitive—gives better installations particularly in fringe areas. Eliminates line voltage variations—battery power gives absolute reading. Has selector switch for checking condition of B+ and filament supply. High selectivity—both sound and video portion of carrier can be measured individually. Built-in phone jack to monitor voice carrier of TV or FM stations. Rugged case built of non-corrosive duraluminum. IF center frequency 20 mc. Range: 50-220 mc, 260-940 mc. Input impedance 300 ohms. Band width ½ mc at 6 db down. Power requirements: Three 45 v. B batteries, two 1½ v. #6 A batteries. Size 11" x 8½" x 6". Shpg. Wt. less batteries 7 lbs.

Radion No. FSM-5000—Net Each (Less Batteries).... **$97.50**

MATHIS TV TOWER EQUIPMENT AND ACCESSORIES



Mathis TV towers are designed and engineered to produce a sturdier and more durable free-standing tower up to 50 feet. These towers may be erected with steel driving base, where soil conditions will permit, or erected in a 3-ft. concrete base. Tower sections are 10 feet in length with section legs miked and aligned to insure easy joining. Coated with chrome appearing, bonded baked-on enamel.

FIG. 12—S-701 10-ft. Standard Mast Section—Shipping Weight, 30 lbs. Net Each..... **$12.75**

T-700—10-ft. top section. Weight, 30 lbs. Net..... **$16.75**

FIG. 1 MHT-700 5-FT. TOP SECTION—For installations using 10-ft. mast or longer and mounting Rotator 3-ft. down in center of tower. Equipped with bushing in head for 1¼" mast (remove bushing for 1½" mast). Equipped with Alemite fittings allowing lubrication for free turning of mast. Net Each..... **$7.25**

MT-700—Same as above, except 10-ft. section. Net... **$12.75**

FIG. 4—MHT ROTATOR MOUNT—For mounting Rotator in Top Section. Bolts and washers furnished. Net Each..... **$1.50**

FIG. 2—T-12 ROOF MOUNT—For 1¼" mast roof installations. Fits any peak or pitch. Locks in vertical position. Net Ea. **$0.90**

TR-24 ROOF MOUNT—Same as T-12 but to fit up to 2" mast or telescoping mast, wrap-around clamp adjust. 1½-2". Net.. **$1.10**

FIG. 3—TPM-70 TOWER PEAK ROOF MOUNT—A tower base mount so designed to be adjustable to any peak or pitched roof, as well as hip or flat deck roof. Net Each..... **$11.50**

FIG. 5—D-201 ROOF OR DECK MOUNT—Used for erection of tower to flat surface where driven or concrete setting is not used. Heavy "U" iron with welded 1" solid post for mounting first section. Weight, 25 lbs. Net Each..... **$11.50**

FIG. 6—D-703 DROP HEAD—Used on top section, permits lowering the antenna and rotator to a position facilitating easy repairs or antenna changes without removing lead or cables. For Alliance, Trio and most rotators. Weight, 2 lbs. Net.. **$3.25**

DC-703 DROP HEAD—For Crown. Wt., 2½ lbs. Net... **$3.25**

FIG. 7—STANDARD BRACKETS—With "U" bolts, grommets.

Mathis No.	Size	Net Each	Mathis No.	Size	Net Each
B-6	6"	$4.50	B-16	16"	$5.00
B-8	8"	4.50	B-18	18"	5.00
B-10	10"	4.50	B-24	24"	6.50
B-12	12"	4.50	B-32	32"	7.50

FIG. 8—AB-16 ADJUSTABLE BRACKET—For support to building. Complete with "U" bolts and grommets. Adjustable from 1" to 16". Weight, 9 lbs. Net Each..... **$6.50**

AB-24 ADJUSTABLE BRACKET—Same as BA-16 except adjustable from 16" to 24". Weight, 11 lbs. Net Each..... **$7.50**

FIG. 9—BASE UNIT AND RODS—Made of heavy gauge steel plate 15" square, punched for leg rods with 3" welded guide sleeves Base rods drilled for mounting first section.

A-704—Base unit only. Net Each..... **$7.00**

A3-705—Three 1" rods, 3-ft. lengths. Wt., 2 lbs. Net..... **1.50**

A5-705—Same as A3-705, except 5-ft. Wt., 3 lbs. Net..... **2.00**

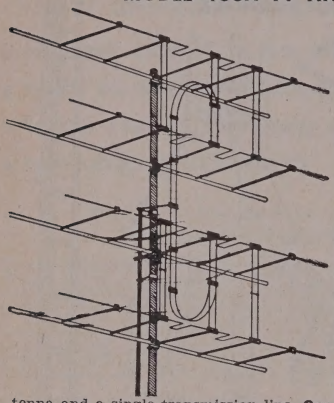
FIG. 10—F-706 DRIVING FIXTURE—Made of tool steel, it is used in driving base legs (one required). Wt., 2 lbs. Net.. **$2.75**

FIG. 11—E-203 ERECTION FIXTURE—Constructed of heavy aluminum tubing mounted in sliding fixture to lock in any position. Weight, 10 lbs. Net Each..... **$24.75**

TV Antennas, Tuners

FINCO VHF AND UHF ANTENNAS

MODEL 400A TV ANTENNA



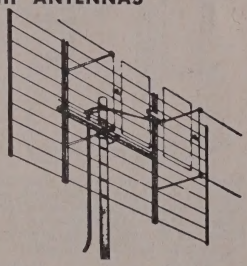
PERFECT FRINGE AREA ALL-CHANNEL RECEPTION FOR BOTH UHF AND VHF
Clear Pictures to 120 Miles from Station
32 Driven Elements
High Gain—
Low Noise Ratio
One Transmission Line
Preassembled for Easy, Fast Assembly
Total Weight Only 8 Pounds

The patented FINCO Double Co-Lateral Antenna is performance engineered for extreme fringe areas. Laboratory and field results prove this model outperforms a 2-bay Yagi on low band and a 4-bay Yagi on high channels. This gain is maintained over both complete bands, giving the advantage of a single antenna and a single transmission line. **Completely preassembled.** Rugged. Corrosion-proof.

Model 400A 4-Bay Co-Lateral Antenna—Net Each... **$25.20**

Model 200A 2-Bay Co-Lateral Antenna—Double Co-Lateral type antenna. Same as above except has two bays instead of four. Completely preassembled. Net Each..... **$12.60**

SERIES 500 UHF ANTENNAS

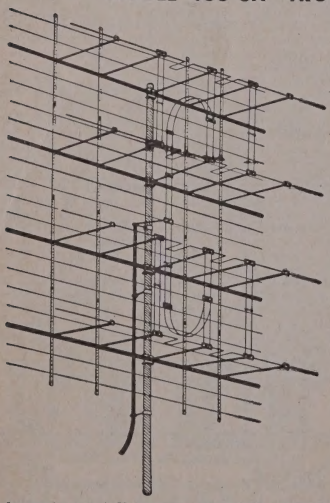


Model 502 is a 2-bay Co-Lateral type with "snap-out" screen for instantaneous installation.

Model 504 is the 4-bay version highly effective in super fringe areas where ultra high gain is constantly required. Both models feature high front-to-back ratio and excellent 300-ohm match. Completely preassembled. Order for channel as listed below.

Model 502A—14-32. Net..**$6.00**
Model 502B—29-55. Net.. **5.40**
Model 502C—53-83. Net.. **4.80**
Model 504A—14-32. Net..**12.00**
Model 504B—29-55. Net..**10.80**
Model 504C—53-83. Net.. **9.60**

MODEL 400-SA "FRO-BAC"



FULL DIMENSION SCREEN.

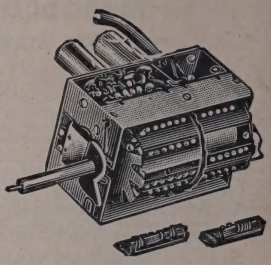
THE SOLUTION TO FRONT-TO-BACK RATIO PROBLEMS.

Same as the well known super fringe 400-A with the addition of a special electronic screen for eliminating rear signal interference and ghosts. Developed to supplement the Finco 400-A in areas where severe front-to-back ratio problems exist. Does not replace the 400-A. Present Finco 400-A and 400 installations can easily be converted to the Finco 400-SA through the use of the new model #14-S conversion kit. All screen reflector elements are full length—80 sq. ft. of highest efficiency reflector surface. The screen is designed for minimum wind resistance with maximum strength. Screen rods are mounted to heat-treated aluminum, vertical triple-strength channels by special stainless steel hardware for absolute rust-free construction. The antenna and the FRO-BAC full dimensional screen are preassembled as one integral unit ready for quick installation. Weight 11½ lbs.

Model 400-SA—"FRO-BAC" TV Antenna. Net Each..... **$32.70**

Model 14-S—Conversion kit for Models 400 and 400-A. Contains "FRO-BAC" screen and stainless steel hardware. Net Ea. **$9.00**

STANDARD COIL TUNERS



Improved VHF front end TV Tuners using 6BQ7A or 6BZ7 RF amplifier tube and 6J6 oscillator-converter. For direct replacement in sets having split-sound or intercarrier systems. Requires 250 v. power supply for tubes.

Standard Yoil No. TCA-050—Super Cascode Tuner factory set at 22.3 mc, adjustable IF to any frequency in 19-26 mc range. 5⅜" high x 3⅜" wide x 5" deep. 2¼" above chassis. Weight 2¾ lbs. Net Each..... **$19.85**

Standard Coil No. TD-050—As above except for sets in 41 mc range. Gives overcoupled response of approx. 3.5 mc peak-to-peak. Net Each..... **$21.85**

Standard Coil No. TAA-050—Pentode Circuit Tuner for 21 mc range. Uses 6BC5 RF Amp. and 6J6 Osc. Mixer. Factory set at 22.3 mc, but adjusts in 19-26 mc range. Net Each **$18.35**

Standard Coil No. TB-050—As above, except for sets in the 40 mc range. Gives overcoupled response of approx. 3.5 mc peak-to-peak. Net Each..... **$19.85**

UHF TV STRIP SETS

For conversion to permit reception of UHF by replacing unused VHF strips of existing Standard Coil Tuner. Complete set for each unit includes one antenna strip and matching oscillator segment. To order, check identifying letter on both antenna strip and oscillator segment (F or F/G, H, K, Q, R, Q/R and U) and state this letter when ordering. Also state channel desired (14 through 83). Average Shipping Weight 6 oz. List Price **$11.25.** Net Each..... **$7.50**

VHF COIL STRIPS

For replacement in Standard Coil VHF Tuners. Each unit includes one antenna strip and one oscillator strip. When ordering specify identifying letter on both antenna strip and oscillator strip (F, H, K, Q, R, Q/R, U) and channel required (2 through 13). Net Each Set..... **$1.50**

REPLACEMENT PARTS FOR STANDARD COIL TUNERS

Standard Coil Part Number	Description	Series Used On	Net Each
9YS436-10PC-7	Screw, Trimmer	U	$0.06
10E-406	Nut, Trimmer Spring	U	.06
11D-022	Washer, Fiber	All except U	.06
16S-009	Tube Shield	All except U	.09
16S-011	Tube Shield	All exc. F, H	.12
16S-012	Shield, Tube (mixer)	T type	.10
16S-013	Shield, Tube (RF)	T type	.10
23A-079	Spring, Shaft Retainer	TV-9000	.06
31A-010	Spring, Osc. Slug	All	.06
31A-010-02	Spring, Osc. Slug	F	.06
31A-010-03	Spring, Slug and Coil	TV-9000	.06
31A-056-1	Dowel. Trimmer	U	.30
31A-067	Sound Trap Assembly	F	2.65
31A-082	IF Coil Assembly	F	.45
31A-152	Ring, Retaining	U	.06
31B-008	Spring, Fine Tuner	All except U	.06
31B-029-02	Osc. Tuning Slug	All	.09
31B-030	Retainer Spring (Drum)	All except U	.06
31B-041	Slug, Tuning	TV-6500	.06
31B-103	Shield, Bottom Cover	H, K, Q, R, Q/R	.75
31B-124	Gnd. Plate, Fine Tuner	F, H, K, Q, R Q/R	.12
31B-137-02	Retainer, Spring Drum, Front	TV-5100	.15
31B-137-03	Retainer, Spring Drum, Rear		.15
31B-178	Shield, Side Cover	All exc. F, U	.12
31B-203-180	Coil Support Assembly	R	2.70
31B-206	Trimmer Kit (exc. Ant.)	All except U	.21
31B-207	Trimmer Kit (Antenna)	All except U	.21
31B-278	Plate, Contact w/Brkt.	All except U	2.25
31B-682(A)	IF Coil Assembly	R, Q/R	.45
31K-108	Spring, Fine Tuner and Rocker Grounding	U	.06
31K-118-02	Spring, Drum Shaft Ret.	U	.06
31K-163-01	Blade, VHF Fine Tuning	U	.30
31K-225-01	Filter Assy., Ant. Input	U	4.50
31K-226	Term. Bd. Assy., Power	U	.15
31K-525	Spring IF Rocker, Rear	U	.06
31K-800	Shield Cover, Side & Bot.	U	.60
31K-801	Dummy Rocker	U	1.35
31K-827	Washer, Spring	U	.06
31K-835	Arm, Pivot	U	.15
31K-886	Link & Shaft Assembly	U	.35
31K-887	Board Assembly, Contact	U	1.90
XM-752	Sound Take-Off Coil	H, K, Q	1.14

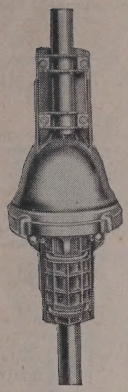
NO. 1011 REPLACEMENT PARTS KIT

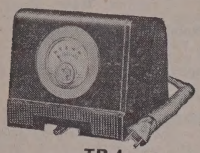
104 small TV tuner parts at your finger tips. This kit is compact, sturdy and fully labeled for quick reference. It gives you the most-called-for parts needed in servicing Standard tuners series TV-200, TV-1500, TV-2000 and TV-2200. Each item (except the very small) individually boxed. Purchase of this kit saves approximately 11% of individual cost.

Standard Coil Kit No. 1011—Net Each..... **$22.50**

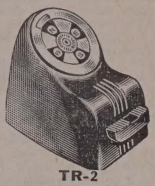
TV Antenna Rotators

RADIART ANTENNA ROTORS





TR-4



TR-2

MODEL TR-4 ANTENNA ROTOR

Heavy duty Antenna Rotor that will handle loads of up to 150 lbs. with ease. Rotates smoothly on 12 heavy duty ball bearings in 6½" races. Powerful, instantly reversible motor transmits more than enough power through the heavy duty, precision gear train. Positive stop at end of rotation. Sturdy streamlined die-cast housing is completely weather sealed. Lubricated at the factory for life. Mounts on mast, tower or roof. Reversible clamps for ⅞" to 2" masts. 3 guy wire lugs. Control Unit housed in attractive blond or mahogany plastic cabinet with meter type dial and finger-tip control lever. 4-wire connecting cable.

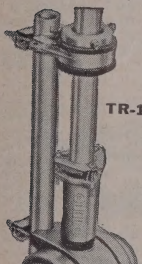
Model TR-4 Heavy Duty Rotor— Net Each..... **$29.37**

MODEL TR-2 ANTENNA ROTOR

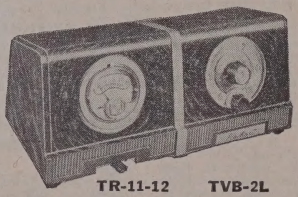
Heavy Duty Rotor Unit is mechanically the same as the Model TR-4 described above. Electrically it differs in that indication of direction is given by means of a "Perfect Pattern" dial that gives the exact antenna position at a glance. The dial is illuminated for easy visibility in dimly lighted rooms. Model TR-2 includes the Rotor Unit, Compass-type Control Unit and 8-wire cable.

Model TR-2 Heavy Duty Rotor— Net Each..... **$26.97**

ROTOR MODELS TR-11 AND 12



TR-12



TR-11-12 TVB-2L

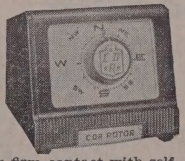
Model TR-11—New Rotor. Quick-mounting mast collet, speedy installation. Takes masts to 1½" OD. High torque. Instantly reversible, complete revolution in 45 seconds. Weather-proof. Very strong. Fits standard towers. Complete with handsome modern plastic cabinet and meter control dial, finger-tip lever. Uses 4-wire cable.
Model TR-11—Net Each..... **$23.97**

Model TR-12—Same as Model TR-11 but includes thrust bearing TA-6 as illustrated. Net Each..... **$25.77**

Booster Model TVB-2L—Low signal-to-noise. Wide band amplification. Complete neutralization for stable operation. Mahogany grained finish. Operate on 115 VAC, 60 cps. Matches control unit as illustrated, 15° tilt to face for easy reading. Completely enclosed. Net Each..... **$8.97**

Combination Kit RAC-1—Includes TR-11 rotor, TA-6 bearing, TVB-2L booster and combination kit. Net Each..... **$34.77**

AUTOMATIC ROTORS AR-1 AND AR-2



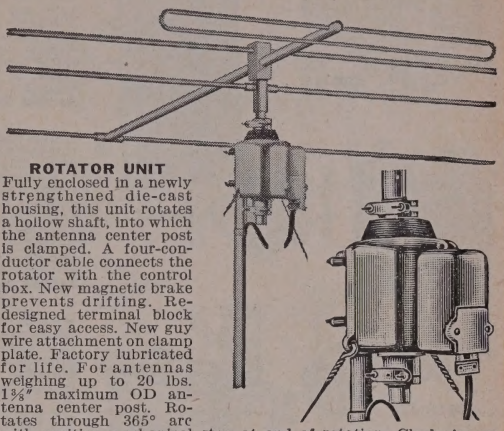
The new automatic C-D R Antenna Rotor features automatic operation plus a mechanical brake that is released magnetically. The new modern design plastic cabinet blends with other furnishings in the room. Rotor unit is similar in appearance to that illustrated above for TR-11 and TR-12. The thrust bearing accessory TA-6 illustrated with the rotor is included with AR-2 Automatic Rotor, but not with Model AR-1. It is a heavy-duty bearing for side thrust with six roller bearings. The Rotor Unit mounts easily to any mast up to 1½" diameter, making firm contact with self-centering saw-tooth clamps. The modern streamlined design holds wind resistance to a minimum. It is completely weather sealed. It is connected to the Control Unit with a 4-wire cable. Easier to operate; just set the dial to the desired direction, and the antenna rotor turns the antenna automatically to that direction and stops. The mechanical brake assures pin-point tuning with an accuracy heretofore not believed possible. Tuning is 40% sharper.

C-D R No. AR-2 Automatic Antenna Rotor—With plastic Control Cabinet and Thrust Bearing. Net Each. **$28.77**

C-D R No. AR-1 Automatic Antenna Rotor—Same as AR-2 but without Thrust Bearing. Net Each..... **$26.97**

C-D R No. TA6—Thrust Bearing Support. Net Each.... **$2.97**

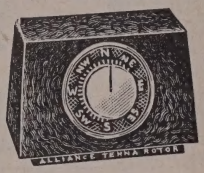
ALLIANCE "TENNA-ROTORS"



ROTATOR UNIT
Fully enclosed in a newly strengthened die-cast housing, this unit rotates a hollow shaft, into which the antenna center post is clamped. A four-conductor cable connects the rotator with the control box. New magnetic brake prevents drifting. Redesigned terminal block for easy access. New guy wire attachment on clamp plate. Factory lubricated for life. For antennas weighing up to 20 lbs. 1⅜" maximum OD antenna center post. Rotates through 365° arc with positive mechanical stop at end of rotation. Clockwise or counter-clockwise rotation; instantly reversible motor. 2 revolutions per minute, minimum coast to stop. Size, 7¾" x 5¼" x 8".

MODEL T-10

MODEL U-83



MODEL T-10 TENNA-ROTOR

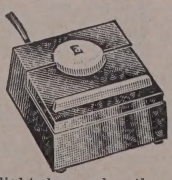
Model T-10 Tenna-Rotor combines above rotator unit with a manually operated direction indicator. Finger-tip "touch-bar" switch with three positions (Stop, Start and Reverse). As the antenna rotates, the needle indicates its position on the compass dial. 110-120 volts, 60 cycles AC. Corrosion-resistant components used throughout. Shipping Weight, 12 lbs.
Alliance Model T-10—Complete with instructions. Net. **$22.46**

MODEL U-83 TENNA-ROTOR

Model U-83 Tenna-Rotor includes the rotator unit shown above and is completely automatic. To operate, move pointer on control panel to the direction of desired station. The antenna then automatically moves toward the desired location, and the dial lights up. The antenna stops where the pointer is set, and the dial light goes out, indicating that the desired point has been reached. The rotator can be put up with "stop" in any desired position and the control box easily synchronized. 110-120 volts, 60 cycles AC. Remote unit housed in brown plastic cabinet. Shipping Weight, 12 lbs.
Alliance Model U-83—Complete with instructions. Net. **$26.21**

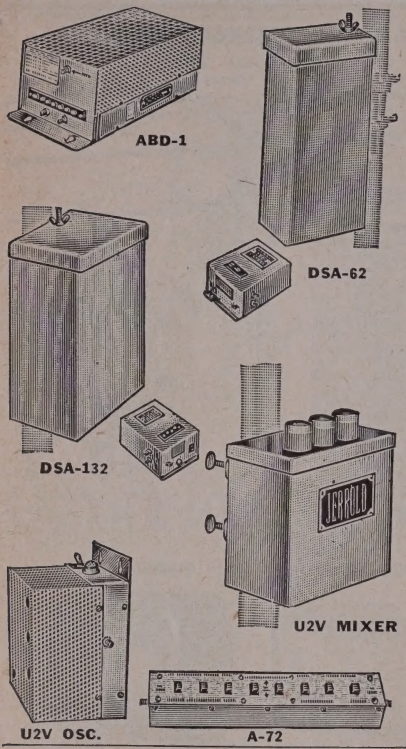
TBB THRUST BEARING BRACKET—Adapts Tenna-Rotor for heavier "Ham" beams or multi-bay TV antennas. Transfers weight from rotor unit to supporting structure and ground. Net. **$2.97**

NEW MODEL K-22 TENNA-ROTOR



Model K-22 Tenna-Rotor combines the modern plastic control case illustrated with an improved rotating unit (not illustrated). It is the third and lowest priced of the Alliance family of Tenna-Rotors. The control unit features a fingertip control bar that instantly rotates the antenna in one direction when pressed on one end and in the other direction when the other end of the bar is pressed. This enables the operator to select the exact position of his antenna for the best possible reception in his area. The automatic center disc signal light shows when the antenna has reached the limit of its rotation in either direction. The rotator unit is housed in a split die-cast zinc housing. The entire unit has been strengthened, and a magnetic brake has been added to minimize drift. The all-weather rotator block is more accessible, and it has a newly designed terminal without any sacrifice of weather seal. A new guy wire attachment has been added to the clamp plate. Rotator operates at about 2 rpm clockwise or counterclockwise. Operates on 110-120 volts, 60 cycles AC.
Alliance Model K-22—Net Each..... **$18.71**

JERROLD TV Multi-Outlet System



ABD-1 DISTRIBUTION AMPLIFIER

High-gain, low-noise amplifier covering channels 2-13. Provides the key to superior TV distribution for small, economical systems. Combining latest cascode circuitry and new mechanical design, the ABD-1 delivers strong, snow-free pictures and keeps installation costs to a minimum. **Gain:** 25 db. **Impedance:** 72 or 300 ohms in, 72 ohms out. **Max. Rated Output:** 0.1 v./channel (7 channel operation). **Max. Rated Input:** 5500 μv. **Noise Figure:** 6 db low band, 7.5 db high band. **Tubes:** 3-6BQ7A; 1-6AK5; 1-6CB6. **Cable Fittings:** 72 ohms (3) C-61; 300 ohms, screw terminals. **Fuses:** B+, 1/10 amp. slo-blo; Pri., ½ amp. slo-blo. **Dimensions:** 11" x 4" x 5". **Shipping Weight:** 7 lbs., 7 oz. **Power Requirements:** 117 volts AC, 50-60 cps, 35 watts.
Jerrold Model ABD-1 Distribution Amplifier—Net Each..... **$59.70**

DSA-132 DE-SNOWER PREAMPLIFIER

Brings your tuner to the antenna. The only way to step up gain of modern cascode tuners without stepping up snow. Power supply mounts on back of receiver. **Gain:** 25 db Channels 2 to 13. **Frequency Response:** ±1 db Channels 2 to 13. Flat for COLOR. **Noise Figure:** 6 db Channels 2 to 6; 7.5 db Channels 7 to 13. **Single Cable Operation:** One coax cable carries 24 volt power up to preamplifier, signal down to receiver. **Power Supply:** Input, 117 volts, 60 cycles; Output to preamp, 24-28 volts. **Inputs:** One 2 to 6 and one 7 to 13 antenna or one 2 to 13 antenna, 72 or 300 ohm. **Output:** 72 or 300 ohm, 0.1 volt/channel, 0.5 v. composite. **Tubes:** 3-6BQ7-A; 1-6AK5; 1-6CB6. **Size:** Preamplifier 5" x 5" x 1¼" overall. **Power Supply:** 2½" x 5½" x 7¼" overall. **Shipping Weight:** 12¾ lbs. "Iridite" weather-proof finish on preamp.
Jerrold Model DSA-132 De-Snower Preamplifier—Net Each..... **$65.70**

DSA-62 DE-SNOWER PREAMPLIFIER

Same as Model DSA-132 except for channels 2 to 6 only. All specifications are the same except as noted herein. **Inputs:** One 2 to 6 antenna, 72 or 300 ohm. **Outputs:** 72 or 300 ohm, 0.1 volt/channel, 0.5 composite. **Tubes:** 1-6BQ7-A; 1-6CB6. **Size:** Preamplifier 2½" x 5" x 10¼" overall; Power Supply 2½" x 5½" x 7¼" overall. **Shipping Weight:** 8¼ lbs.
Jerrold Model DSA-62 De-Snower Preamplifier—Net Each..... **$49.50**

U2V UHF CONVERTER

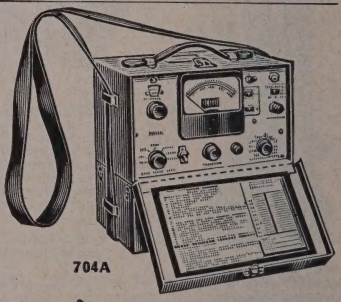
Top mounted mixer head converts right at the antenna. The UHF oscillator is mounted at the amplifier location (or at the TV receiver) and feeds signals for conversion up to the mixer. Signals leave mixer as VHF so coaxial cable may be used. Will convert any UHF channel to VHF. Order by specifying UHF channel to be converted to a specific VHF channel. **Mixer Head:** UHF Input double cavity tuned, 10 mc bandwidth, 72 ohms. VHF Output 72 ohms. Mixer Crystal, CK 710 or CK 731. **Dimensions:** 4¼" x 4⅞" x 2⅞". **Weight:** 1 lb., 13 oz. **Mounting:** Mast mounted, brackets and straps supplied. **Oscillator:** Tubes: 1-6AF4; 1-OB2. **Output:** 1.0 v. RMS. **Power Requirements:** 117 v. AC, 50-60 cps, 25 watts. **Dimensions:** 4½" x 5½" x 7". **Weight:** 3½ lbs. **Mounting:** May be mounted either horizontally or vertically.
Jerrold Model U2V UHF Converter—Shipping Wt., 7 lbs. Net Each. **$74.70**

A-72 VARIABLE RF ATTENUATOR

Provides precise attenuation from 0 to 82 db by simple "IN" and "OUT" switches. Designed for use with 72 ohm coax cable, it is linear from 0 to 250 mc. V.S.W.R. less than 1.05 when properly attenuated. Accuracy ±1.0 db at maximum attenuation. Insertion loss less than 0.5 db at 200 mc. Capable of handling 500 milliwatts CW.
Jerrold Model A-72 RF Attenuator—Net Each..... **$54.50**

704A VHF FIELD STRENGTH METER

A calibrated direct-reading instrument for TV and FM measurements—a "must" for color. Reads down to 5 microvolts and up to 3 volts. 0.6 mc band width. Separates color subcarrier from audio carrier—audio from adjacent video. Precise readings in db or microvolts ±0.8 db over entire range. Reads percent of modulation of FM carriers, percent of AM distortion of FM amplifiers, percent AM of RF generators. Output jack to phones or scope. **Frequency Range:** 54 to 220 mc. covered in one band. **Ranges:** 0-100 μv; 0-300 μv.; 0-1000 μv.; 0-3000 μv.; 0-10,000 μv.; 0-30,000 μv. Four additional ranges through use of built-in precision attenuator: 0-100,000 μv.; 0-300,000 μv.; 0-1 volt; 0-3.0 volts. **Image Rejection:** Minimum of 60 db. **Power Requirements: AC,** 55 watts, 105-125 volts, 50/60 cps. **DC,** 30 watts (5 amp.), 5.5-6.5 volts (with 704-A-6V power supply). **Tubes:** 2-5654; 1-6AB4; 1-6T8; 1-OD3 (VR150); 3-5749; 1-5V4; 1-12AU7. **Dimensions:** 12" H., 12¾" W., 8" D. **Finish:** Gray crackle, aluminum case. **Carrying Weight:** 19 lbs.
Jerrold Model 704A VHF Field Strength Meter—Net Each..... **$350.00**
Jerrold Model 704-A-6V Power Supply—Net Each..... **$47.50**



DISTRIBUTION EQUIPMENT

T-1604 FOUR-WAY SPLITTER (FIG. A)
Reactive type, 6 db loss to each leg, 12 db isolation between outputs. **In. Imp.:** 72 ohms. **Out. Imp.:** 72 ohms. **Dim.:** 3" x 3⅛" x ⅞". Uses five C-61 fittings. With five C-52 connectors. Net... **$8.70**

1602 TWO-WAY SPLITTER (NOT ILL.)
Resistive type, 6 db loss in each output leg, isolation between outputs 6 db. **In. Imp.:** 72 ohms. **Out. Imp.:** 72 ohms. **Dim.:** 3" x 2¼" x ⅞". Uses three B-59 fittings. Net Each..... **$4.20**

LT-300 LINE TAP (FIG. B)
Line tap and isolation unit for RG 59/U cable. For 300 ohm receivers. Steel, radiation-proof housing, mounts on wall or baseboard. **In. Imp.:** 72 ohms; **Out.:** 300 ohms. **Dim.:** 2¾" x 2¼" x ⅞". **Cable Fittings:** 72 ohms, (2) B-59; 300 ohms, screw terminals. Net Each..... **$3.60**

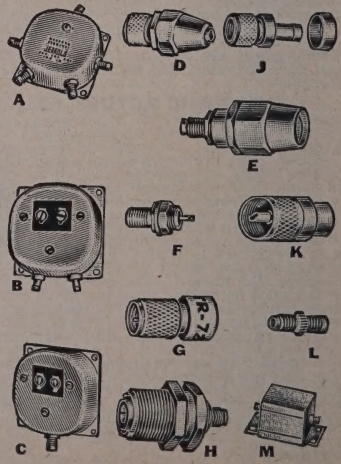
MODEL LT-300T—Same, except for built-in terminating resistor. Net.. **$3.60**

LT-75 LINE TAP (NOT ILL.)
Same as LT-300 except provides a tap for 72-ohm receivers. Net Each..... **$3.60**

MODEL LT-75T—Same as LT-300T except for 72 ohm receivers. Net Ea. **$3.60**

T-372 MATCHING UNIT (FIG. C)
For 72 and 300 ohm devices. 6 db step from 72 to 300 ohms. Isolates AC-DC units from cable. Includes C-52 connector. **Freq. Resp.:** 50-250 mc flat. **VSWR:** 1.48. **Dim.:** 2¾" x 2¼" x ⅞". **Fittings:** 72 ohms, C-61; 300 ohms, screws. Net Each **$3.60**

ST-1601 MATCHING UNIT (NOT ILL.)
Wall unit, matches receiver to 72 ohm line. With C-52 connector. **In. Imp.:** 72 ohms. **Out. Imp.:** 72 or 300 ohms. **Fittings:** 72 ohms, B-59; 300 ohms, screw terminals. Net Each..... **$2.70**

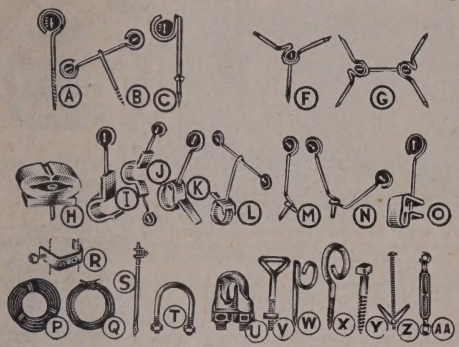


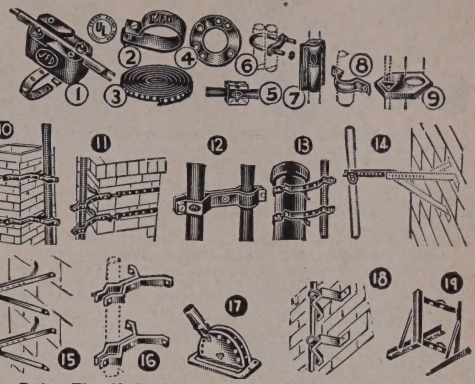
ACCESSORIES

Jerrold No.	Figure	Description	For Cable	Mates With	Net Each
C-51	D	Male Connector	RG-59/U	C-61, C-81, C-101, C-5911	$0.48
C-101	E	Heavy Duty Adapter	RG-11/U, RG-8/U	With (1) C-51 connector	1.50
C-61	F	Female Receptacle	.....	C-51, C-52, C-56	.48
TR-72	G	Terminating Resis.	72 ohms	C-61, C-81, C-101, C-5911	.90
C-5911	H	Feed-Thru Adapter	.....	C-1113 to C-51, C-52, C-56	2.10
C-52	J	Male Connector	RG-59/U	C-61, C-81, C-101, C-5911	.48
C-56	J	Male Connector	RG-6/U	C-61, C-81, C-101, C-5911	.62
C-1113	K	Male Connector	RG-11/U, RG-13/U	Requires soldering	.60
C-81	L	Cable Junction	RG-6/U, RG-59/U	C-51, C-52, C-56	.60
PL-601	Heavy duty crimping tool for C-52, C-56 and B-59.				3.90
PL-52	Crimping tool for C-52 and C-56 connectors. (Neither illustrated).				1.75
PD-3	M	Fixed RF Attenuator Pad, 3 db on 72 ohm line. **PD-6,** 6 db; **PD-10,** 10 db; **PD-20,** 20 db; **PD-30,** 30 db. Any model.....			4.00

TV Antenna Mounting Accessories

JFD TELEVISION ANTENNA ACCESSORIES





SCREW EYE STAND-OFF INSULATORS

For swift, secure anchoring of Transmission Lines. Polyethylene insert in cadmium plated steel screw.

SINGLE FIG. A			DOUBLE FIG. B		
JFD No.	Length	100 For Net	JFD No.	Length	Net Each
BR18TL3	3½"	$3.00	DBR18TL3	3½"	$0.14
BR18TL5	5½"	4.80	DBR18TL5	5½"	.16
BR18TL7	7½"	5.40	DBR18TL7	7½"	.17
BR18TL12	12"	12.00	DBR18TL12	12"	.28

NAIL "DRIVE-IN" INSULATORS—FIG. C

NT100	3½"-No. 8 wire	.05	NT207	7"-No. 6 wire .09
NT200	3½"-No. 6 wire	.07	These insulators for twin lead.	

MAST LEAD-IN INSULATORS

Self-Anchoring Stand-Off—Fig. F. Braces lead-ins in inaccessible positions. **JFD Nos. LST-350-LSR350.** Net Each.....12c

Double Self-Anchoring Stand-Off—Fig. G.
JFD Nos. DLST350-DLSR350—Net Each.....21c

Rubber-Wall Stand-Off—Fig. H. For securing twin lead lines in doors to walls, etc. **JFD No. MB100**—Net Each.....6c

CLIP-ON INSULATORS

SINGLE CLIP-ON—FIG. I			DOUBLE CLIP-ON—FIG. J		
SPT100	1"	6c	DSPT100	1"	15c
SPT116	.....	6c	DSPT125	1¼"	15c
SPT125	1¼"	6c	DSPT138	1⅜"	15c
SPT138	1⅜"	7c	DSPT150	1½"	15c
SPT150	1½"	7c	DSPT158	1⅝"	16c
SPT158	1⅝"	8c	DSPT175	1¾"	16c
SPT175	1¾"	8c	DSPT178	1⅞"	16c
SPT178	1⅞"	8c	DSPT200	2"	18c
SPT200	2"	9c	.....		

To order coaxial types, substitute R for T.

ADJUSTABLE STAND-OFF INSULATORS

For twin and dual twin lead transmission lines. Mount anywhere.

SINGLE—FIG. K			DOUBLE—FIG. L		
JFD No.	Length	Net Each	JFD No.	Length	Net Each
UT350	3½"	11c	DUT350	3½"	21c
UT550	5½"	14c	DUT550	5½"	23c
UT750	7½"	15c	DUT750	7½"	24c
UT1200	12"	28c	DUT1200	12"	33c

Masonry "Drive-In"—Fig. M. Hammers directly into concrete, etc. **JFD Nos. FN100T-FN100R**—Net Each.....7c

D'B'L Masonry "Drive-In"—Fig. N. Anchors both high and low band lead-ins. **JFD Nos. DFN100T-DFN100R**—Net...14c

Gutter Stand-Off—Fig. O. Anchors twin lead-ins safely and securely against gutters.
JFDNo. GST350—3½". Net Each.....21c
JFD No. GST750—7½". Net Each.....24c

ALUMINUM GD. WIRE—FIG. P STEEL STRAND GUY WIRE—FIG. Q

Recommended by National Electrical Code.

JFD No.	Length	Net Each
BR79	100 ft.	$1.80
BR79	500 ft.	8.40

JFD No.	Length	No. Strand	Net Each
TW4	100 ft.	6	$1.16
TW4	1000 ft.	6	10.82
TW5	100 ft.	4	.83
TW5	1000 ft.	4	7.99

Ground Clamp—Fig. R. For grounding masts of any size.
JFD No. 67-6—Net Each.....15c

Plated Ground Rod—Fig. S. Copper-plated, heavy gauge steel ground stake. 4' long. **JFD No. BR80.** Net Each.....90c

U-Bolt—Fig. T. For mounting masts up to 1½" OD. Supplied with nuts and washers. **JFD No. BR37**—Net Each.....15c

Guy Wire Thimble—Fig. U. For joining guy wires, in vise-tightening operation. **JFD No. BR61**—Net Each.....18c

Eye Bolt—Fig. V. Of galvanized steel, for taking up slack in hanger strapping. Length 4". **JFD No. BR70**—Net Each.....9c

Drive Ring—Fig. W. Strong anchor for guy wire; made of galvanized steel. **JFD No. BR31**—Net Each.....5c

Bridle Ring—Fig. X. Large eye for any size or number of guy wires. **JFD No. BR32**—Net Each.....5c

Lag Bolt—Fig. Y. Easily screws into wood, brick, etc.

JFD No.	Length	Net Each	JFD No.	Length	Net Each
BR36-1	1"	5c	BR36-2	2"	6c
BR36-1½	1½"		BR36-3	3"	7c

Spring Wing Toggle Bolt—Fig. Z. For mounting brackets against hollow walls; cad.-plated. **JFD No. BR29**—Net Ea. 15c

Turnbuckle—Fig. A-A. Takes up guy wire slack swiftly and securely. Corrosion-resistant steel.
JFD No. BR28-3—3½" Net 12c
JFD No. BR28-5—5½" Net 18c
JFD No. BR28-7—7½" Net 54c

Heavy-Duty Lightning Arrester—Fig. 1. For special heavy and tubular twin lead; outdoor or indoor use. No wire stripping necessary. **JFD No. AT103**—Net Each.....$1.35
JFD No. AT102—For regular twin lead. Net Each.....$1.35

Ring Clamp—Fig. 2. Adjustable to fit popular mast diameters.
JFD No. BR25-1. For ¾" to 1" masts. Net Each.....7c
JFD No. BR25-1¼. For 1¼" to 1½" masts. Net Each.....7c

Hanger Strapping—Fig. 3. Made of ¾" galvanized steel, for mounting masts. **JFD No. BR15**—100 ft. coil. Net Each $3.57

Floating Guy Ring—Fig. 4.
JFD No. BR24—For 1", 1⅛", 1¼" and 1⅜" masts.
Specify size required. Net Each.....9c
For 1½" and 2" mast. Net Each.....12c

Twin Lead Connector—Fig. 5. JFD No. BR57—Net Ea. 15c

Mast Joiner—Fig. 6. Holds 2 masts.
JFD No. BR40—Net Each.....24c

Mast Extension Connector—Fig. 7. Corrosion-resistant steel.
JFD No. BR26-1. For 1" to 1⅛" masts. Net Each.....60c
JFD No. BR26-1¼. For 1¼" to 1⅜" masts. Net Each.....60c
JFD No. BR26-10—10" length. Net Each.....90c

Pipe Hanger—Fig. 8. Galvanized steel.
JFD No. BR41—1", 1¼". Net Each.....5c

Rubber Stand-Off—Fig. 9. Anchors both twin lead or coaxial cable to masts up to 1¼" OD. **JFD No. BR21**—Net Each...5c

Antenna Chimney Mount—Fig. 10. Unlimited spacing between brackets. For ½" to 1½" masts. Supplied with 21' steel strapping and hardware. **JFD No. BR2.** Net Each.....$1.95

Chimney Mount—Fig. 11. Made of corrosion-resistant steel; for masts ½" to 1½" OD. Complete with 21' steel band.
JFD No. BR7—Net Each.....$3.15

Mast Bracket—Fig. 12. Joins ⅞" to 1¼" masts; galvanized steel, two brackets per set. **JFD No. BR5**—Net Each.....30c

Vent Pipe Mount—Fig. 13. Fastens quickly with minimum effort; corrosion-resistant steel. Complete with hardware.
JFD No. BR9—Set of two. Net.....$2.16

Wall Extension Bar—Fig. 14. Designed for use with Wall Mount No. BR11 (described below). Extends range of wall clearance to 24". **JFD No. BR11X**—Set of two. Net.....$1.80

Adjustable Wall Mount—Fig. 15. Anchors ⅞"—1¼" masts 6 to 15 inches from wall. Ideal for clearing projecting parts.
JFD No. BR11—Set of two. Net.....$4.50

Vertical Wall Mount—Fig. 16. Grips masts ½" to 1½" OD. Compact in size but ruggedly constructed.
JFD No. BR10—Set of two. Net.....$2.16

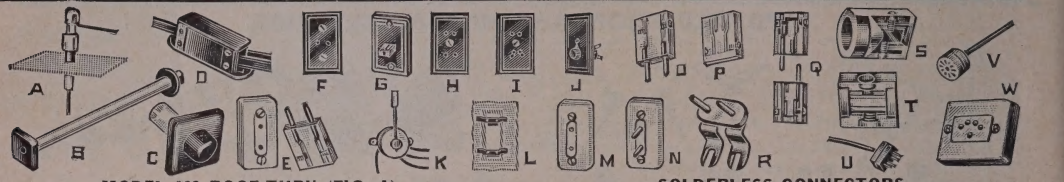
Antenna Base Mount—Fig. 17. Permits mounting of masts up to 1⅜" OD, anywhere—on walls, window sills, roofs, etc.
JFD No. BR8—Net Each.....$4.50

U-Bolt Bracket—Fig. 18. Sturdy, securely grips all masts from 1" to 1½" OD. Made of corrosion-resistant steel, with hardware.
JFD No. BR46-3—3". Net Each.....$1.02
JFD No. BR46-4—4". Net Each..... 1.08
JFD No. BR46-7—7". Net Each..... 1.23

Angle Steel Base Mount—Fig. 19. Special design permits permanently secure mounting. Made of heavy gauge galvanized steel. Size 12" x 12". **JFD No. BR3**—Net Each.....$9.00

348-54A

Mosley TV Antenna Accessories



MODEL 623 ROOF-THRU (FIG. A)
Low-loss polystyrene feed-thru bushing combined with an 8" x 9" copper flashing provides direct weather-proof roof entrance for TV lead-in or rotator control cable. For tubular or oval lines. No roof cement needed. Net Each..... $3.50
Model 623-PK—Above, with one F-1 Single Flush Socket, mounting hardware and mating Transmission Line Plug. Net.. $4.71
Model 624—Roof-Thru for flat line. Net Each..... 3.50
Model 624-PK—Same as 623-PK except with 624 unit. Net 4.71

MODEL 625 WALL-THRU (FIG. B)
Installs easily and quickly in any wall up to 13" thick to provide neat, low loss weather-proof wall entrance for TV lead-in or rotator control cable. Use with any tubular, oval or flat lines. Available in brown or ivory. Net Each..... $1.17
Model 625-PK—Same as above with 343 and plug. Net.. $1.80

MODEL 626 WALL-FEED (FIG. C)
Provides weather-proof entrance into attic where line can be dropped inside of wall and terminated at a Mosley Flush Socket. Molded polystyrene plate with weather hood and 2" polystyrene tube adaptable to thickness of most wall sheathing and siding. May be cut flush with inside surface. Net Each.... 76c
Model 626-PK—Above with one 343 TV Lead-In Socket and mating Transmission Line Plug. Net Each..... $1.39

MODEL 902 DUAL MATCH TWO-SET COUPLER (FIG. D)
Minimizes set interaction and radiation. Housed in sturdy polystyrene case. Easy to install outside building in semi-protected area. Solderless. With mounting screws. Net Each. $2.37

MODEL 912 "TINY-MITE" (FIG. E)
Multiple TV set coupler and convenient plug-in socket combined in one compact, quickly installed unit. Acts as effective isolating tap-off. Will operate two TV sets from one antenna and, under suitable conditions, several couplers may be utilized to operate up to 4 or 5 sets. Available in brown or ivory, supplied with solderless plug and wood screws. May be installed on inside plate of Model 625 wall-thru. Net Each..... $1.05

FLUSH-MOUNTED TV LEAD-IN SOCKETS (FIG. F)
Model F-1 Single Flush Socket—For single 300 ohm TV or FM lead-in. With mounting machine screws. In brown or ivory. Net Each..... $1.00
Model F-1PK—Above, with mating Solderless Transmission Line Plug, F-9 mounting brackets and matching screws. Net.. $1.17
Model F-2 Wall Plate Socket—Similar in appearance to F-1 but intended for use where line cannot be concealed in wall. No wall opening needed. Brown or ivory. With screws. Net. 81c
Model F-2PK (Fig. G)—Above, with mating Solderless Transmission Line Socket and mounting wood screws. Net Each.. 99c
Model F-11 Dual Flush Socket (Fig. H)—For installations where separate high and low channel antennas are used or where it is desired to terminate both TV and FM lines in one socket. Solderless. With screws. In brown or ivory. Net Each.... $1.25
Model F-11PK—Above, with one mating solderless Transmission Line Plug, F-9 mounting brackets and screws. Net Each.. $1.60
Model F-14 Lead-In and 4-Wire Rotator Cable Socket (Fig. I)—Rotator cables mate with polarized multi-wire line plugs. Solderless. With screws. Brown or ivory. Net Each..... $1.25
Model F-14PK—Above, with F-9 mounting brackets. Solderless Transmission Line Plug and one Model 374 Solderless Polarized 4-Wire Line Plug. Net Each..... $2.11
Model F-155 Socket (Not Ill.)—Combination lead-in and 5-wire rotator cable flush socket. Brown or ivory. Net Ea.. $1.25
Model F-155PK—Same, with F-9 brackets, one Solderless Transmission Line Plug and one Model 375 plug. Net Each.... $2.11
Model F-18 Socket (Not Ill.)—Combination lead-in and 8-wire rotator cable flush socket. Brown or ivory. Net Ea.. $1.35
Model F-18PK—Above, with F-9 brackets, one Solderless Transmission Line Plug and one Model 378 plug. Net Each.... $2.16
Model F-10 Com' ination Socket and 3-Way Switch (Fig. J)—Single lead-in socket combined with handy, constant impedance switch. Provides instant change-over to any one of 3 antennas or may be used to switch one antenna to 3 different TV sets. Rotary type switch, silver contacts. Brown or ivory. Net $2.25
Model F-10PK—Above, with one mating Solderless Transmission Line Socket and F-9 mounting brackets. Net Each..... $2.64

MODEL F-20 3-WAY TV ANTENNA SWITCH (FIG. K)
Sturdy 3-position switch for easy change-over to any one of three antennas or for one antenna to three TV sets. Rotary type, silver-to-silver contacts. Polystyrene case has no effect on 300 ohm impedance. Extensions rod (as ill.) supplied for easy access when mounted on back of set. Four sections of 300 ohm line factory wired to switch, and Solderless Transmission Line Splicers supplied. Brown or ivory. Net Each..... $2.25

MODEL F-9 FLUSH SOCKET MTG. BRACKETS (FIG. L)
Consists of 4 accurately punched and tapped heavy gauge steel straps with necessary machine screws. Requires rectangular wall opening 1¾" wide x 4" long. Net Price..... 21c

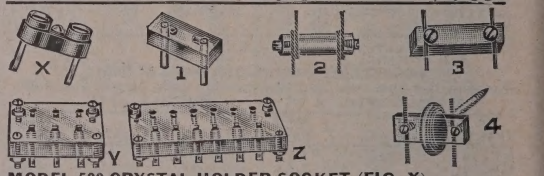
MODEL 343 UNIVERSAL TV LEAD-IN SOCKET (FIG. M)
For mounting on baseboard, wall or directly on inside of Model 625 Wall-Thru. Mounts on metal chassis without shorting. Serves as line tap or terminal socket and provides constant impedance connection to 300 ohm line when used with Model 301 Line Plug. Precision molded polystyrene, phosphor bronze contacts. ⅞" W., 1¾" L., ⅝" D. Solderless. Brown or ivory. Net Ea. 48c
Model 343-PK—Above, with one universal line plug. Net. 63c

MODEL 344 UNIVERSAL TV LEAD-IN RECEPTACLE (FIG. N)
Similar to Model 343, but designed with male pins. Brown or ivory. With mounting screws. Net Each..... 48c
Model 344-PK—Above, with one universal line plug. Net.. 63c

SOLDERLESS CONNECTORS
Mosley solderless multi-wire plugs, sockets and splicers provide fast, efficient and neat connections for TV and FM lead-in lines and rotator control cables. The use of high grade polystyrene and phosphor bronze contacts assures low loss at TV frequencies.and provides excellent mechanical and electrical connections.
Model 301 Universal Transmission Line Plug (Fig. O)—Only .02 db loss when mated with Model 311. Use with Flush Sockets and Model 343, as well as Model 500 and all octal tube sockets. Net Each..... 18c
Model 311 Universal Transmission Line Socket (Fig. P)—Mates with Model 301 Plug, 304 Input Adapter, Model 344 Universal Lead-In Socket. Solderless. Net Each..... 18c
Model 321 Polarized Transmission Line Connector (Fig. Q)—Designed to prevent reversal of polarity when connecting or splicing standard 300 ohm line. Use in pairs. Per pair. Net.. 36c
Model 304 Input Adapter (Fig. R)—Ideal connector for TV sets, boosters, converters, etc. Attaches to antenna terminal strip at rear of chassis and mates with Model 311 Universal Transmission Line Socket to provide low loss, constant impedance plug-in connection at the set. For 300 ohm impedance. Net Each. 18c
Model 304-PK—Above, with one Model 311 Socket. Net Ea. 36c
Model 29-S Tubular to Flat Line Splicer (Fig. S)—Solderless, for joining tubular or oval types to standard flat line. Ideal for UHF installation where it is desired to bring more easily hidden flat line into the house. Non-ferrous screws. Net Each.... 12c
Model 27-S Flat Line Splicer (Fig. T)—Handy, inexpensive. For standard flat 300 ohm line. Non-ferrous screws. Net Ea. 11c

ROTATOR PLUGS AND SOCKETS
Provides ultimate in convenience and efficiency where 4, 5 and 8 wire flat or round cable is terminated or connected. Solderless connection without need for set screws. Raised guide lines assits mating. 4 and 5-wire connectors have flat sides, 8-wire connectors are round. Solderless base sockets may be mounted on wood or metal. Molded polystyrene with plated brass pins and machine screws. Phosphor bronze contacts.

Mosley Type	Figure	Description	Net Each
374	U	Line Plug. For 4-wire cable.	$0.45
375	U	Line Plug. For 5-wire cable.	.49
378	U	Line Plug. For 8-wire cable.	.60
364	V	Line Socket. For 4-wire cable.	.58
365	V	Line Socket. For 5-wire cable.	.62
368	V	Line Socket. For 8-wire cable.	.75
354	W	Base Socket. For 4-wire cable.	.82
354-PK	W	354 with 4-wire line plug.	1.27
355	W	Base Socket. For 5-wire cable.	.90
355-PK	W	355 with 5-wire line plug.	1.39
358	W	Base Socket. For 8-wire cable.	1.05
358-PK	W	358 with 8-wire plug.	1.65



MODEL 500 CRYSTAL HOLDER SOCKET (FIG. X)
For standard holders with .095" pins spaced ½". Molded of Styron 700 which withstands temperature 20° F. higher than GP polystyrene. Phosphor bronze contact strips recessed. Contact strips and solder lugs are one piece. Designed for easy mounting under chassis or behind panel; supplied with 4-40 x ⅝" plated brass machine screw and template. 7/16" wide, 11/16" long. Chassis or panels to ⅛" thick. Net Each..... 21c

MODEL 53 3-GANG MULTI-SOCKET (FIG. Y)
Ideal for use with selector switch to provide rapid frequency shift in crystal controlled transmitters. Takes crystal holders with .096" pins spaced ½" and Model 301 Universal Line Plug. Low-loss acrylic plastic, phosphor bronze contacts. Supplied with plated brass machine screws. Net Each..... 65c

MODEL 56 6-GANG MULTI-SOCKET (FIG Z)
Similar in construction to Model 53, but designed to take six crystal holders or Model 301 plugs. Net Each..... $1.25

MODEL 75-5 CRYSTAL HOLDER ADAPTER (FIG. 1)
Takes crystal holder with pins spaced ¾" and plugs into sockets having ½" spacing. Fits octal sockets as well. Net.. 35c
Model 5-75 Adapter—Similar to above, except adapts ½" spaced holder for use in ¾" sockets. Net Each..... 35c

MODEL 450-1 SPLICER (FIG 2)
For joining sections of standard 1", 450 ohm open-wire line. Also ideal for splicing standard 300 ohm flat line to open wire line. Solderless, unaffected by weather. Net Each..... 10c

SPACER BARS (FIG. 3)

Mosley No.	For Spacing	Net	Mosley No.	For Spacing	Net
450-3	1"	6c	450-34	4"	22c
450-32	2"	17c	450-36	6"	25c

MODEL 450-2 ANCHOR BAR (FIG. 4)
Use with TV screw-eye stand-off of any size or shape. Holds 1" open-wire line secure with proper wire spacing. Low-loss acrylic with non-rusting screws. Less stand-off. Net..... 18c

Television Components

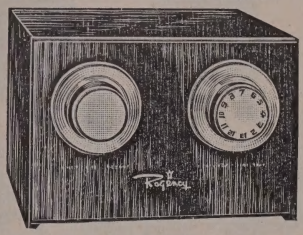
REGENCY TELEVISION EQUIPMENT

MODEL RT-700 TELEVISION REMOTE CONTROL

•

UNIVERSAL

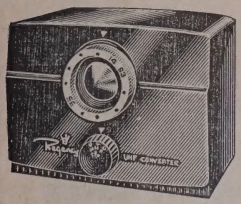
•



A new principle in remote control devices. Does away with constant "getting up and down" televiewing. Universal for more than 20,000,000 TV sets. Works on as much as 100 ft. of cable (permits running cable around rooms). Changes channels instantly, sharpens contrast, brightens picture, controls volume. Adjusts picture from where it is seen. Duplicates set controls. furnished.

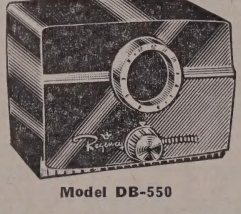
Regency Mod. RT700-21B. For 21 Mc I.F., **Blond**—Net. $52.46
Regency Mod. RT700-21M. For 21 Mc I.F., **Mahogany** $52.46
Regency Mod. RT700-41B. For 41 Mc I.F., **Blond**—Net 52.46
Regency Mod. RT700-41M. For 41 Mc I.F., **Mahogany**. 52.46

MODEL RC-53 UHF CONVERTER



Converts all VHF Channels To a Wide Selection of UHF Channels — Excellent Performance In All UHF Locations.
Excellent low priced all channel converter provides conversion from all VHF channels to a wide selection of UHF channels. Gives excellent performance in 80% of UHF locations. Tuning system uses modified "tuned lines". Uses a TS-2 crystal mister and 6AF4 oscillator. Bakelite cabinet. Size 4 17/64" x 6" x 4½". For 105-125 v., 60 cycle AC. Shpg. Wt. 7 lbs.
Regency Model RC-53 Converter—Net Each..... $14.96

MODEL DB-550 CASCADE BOOSTER



Model DB-550

Push Pull. Neutralized. Superior performance. Accurate 300 ohm input and output. High gain, low noise. Wide band amplification . . . ready for color. Covers VHF channels 2 through 13. 3 tuned circuits. Cascade amplifier, grounded grid output stage. Single tuning knob . . . large . . . easy to read. Contra-wound bifilar coils. Ceramic switches. U/L Approved. Power consumption, 15 watts. 105-125v. AC, 50-60 cps only. Tubes: 1-6J6; 1-12AT7. **Selector Switch:** OFF—antenna straight through; ON, antenna straight through; Channels 2-6; Channels 7-13
Regency Model DB-550—Net Each..... $22.50
Cabinet for DB-550—Net Each..... $1.50

MODEL DB-98A FM BOOSTER

Similar in appearance to Model DN-550 Booster. Engineered to bring out the full glory of FM sound, even when you live miles from the transmitter. Utilizes the original Regency circuit with the 6J6 push-pull amplifier. Bandwidth, 2.5 megacycles at 3 db down, 20 db gain. Voltage gain of 10. Large easy-to-read dial, three position switch. No installation problem—just plug in. Streamlined plastic cabinet, 4 17/64" x 6" x 4½". Lightweight, compact. $17.97
Regency Model DB-98A—Net Each.....

MODEL VB-1 VOLTAGE BOOSTER

Maintains 117 volt power supply to any TV set regardless of line voltage variations from 90 to 130 volts. Performs for any TV set or electrical device drawing 350 watts or less. May be used in high voltage or low voltage areas. Indicator lights show proper position of selector switch below them. When both lights are out, voltage is low, if both are on, voltage is too high. Tap switch, in either case, should be adjusted until only the left indicator is on. $11.97
Regency Model VB-1—Net Each.....

MODEL HP-45 HIGH PASS FILTER

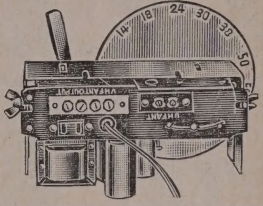
Not Illustrated. Reduces TV interference caused by interfering transmitters. A constant "K" type filter with a cut-off frequency of approximately 45 mc in a 300-ohm balanced line. Attenuation of 29 mc is approximately 20 db. At frequencies of 14 mc and below, the attentuation is 40 db or more. Signals above 55 mc are passed through the filter without loss. Full instructions with each unit. 99c
Regency Model HP-45—Net Each.....

MALLORY UHF CONVERTERS

MODEL 88 ALL-CHANNEL UHF CONVERTER

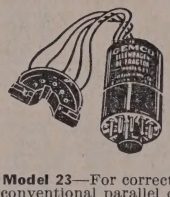
Model 88 converter provides high fidelity reception of all UHF stations within signal range through present TV sets without internal modification. Provides high selectivity and gain in fringe areas. Precision constructed and designed to tune the entire UHF spectrum from 470 to 890 mc. Has 3-position switch for selection of UHF or VHF stations and switching both set and converter off and on.
Tubes: 6AF4 or 6T4, 1N72 and selenium rectifier. **Input Impedance:** 300 ohms nominal. **Output Impedance:** 300 ohms. Size 7½" x 5" x 5¾". For 117 volt, 60 cycle AC. Shpg. Wt 3½ lbs.
Mallory Model 88 Converter—Net Each..... $22.46

MODEL 188 "CONCEALED" UHF CONVERTER



A new, efficient UHF converter that mounts conveniently inside the cabinet of any present TV set. Easily installed directly on the inner, sidewalls or top of the TV set cabinet. Only the control lever and tuning dial show at either side or over top of the TV cabinet. Continuous tuning range channels 14 through 83. Uses channel 5 or 6 of TV set for tuning. The converter is factory aligned and tested. Furnished complete with interconnecting transmission line, complete with mounting hardware. For 117 volt, 50-60 cycle AC operation.
Mallory Model 188 UHF Converter—
Net Each..... $22.46

GEMCO ELLENBAGEN REFRACTOR



The Gemco Ellenbagen Refractor is an ingeniously designed self-leveling transformer wired in adapter form so that the bias, grid, cathode and anode voltages applied to the CRT remain unchanged. It increases the emission of a weak, "soft" or dark CRT, extending its useful life for as much as three or more years. A Gemco Ellenbagen Refractor can be installed in less time than it takes to replace any tube in the receiver. No wiring, no soldering. Just plug it in. The improvement is immediately noticed.

Model 23—For correcting "soft", weak or dark CRT in conventional parallel circuit. Net Each..... $2.90
Model 25—For correcting "soft", weak or dark CRT where pin No. 6 on the CRT is the extra grid—electrostatic focus picture tubes parallel circuit. Net Each..... $3.15
Model 27—For correcting "soft", weak or dark CRT where the filament of the CRT is a series circuit—GE, Silvertone, Teletone, etc. Net Each..... $3.55

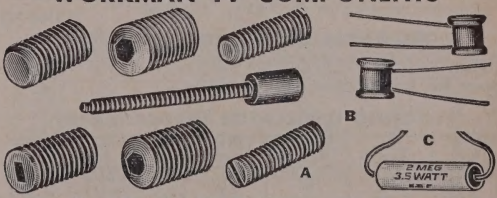
NEW "S" SERIES REFRACTORS

These units are designed to boost a CRT whose emission has reached so low a point that the standard boosters will no longer bring it up to normal.
Model S-23—Standard parallel filament type. Net Each.. $3.00
Model S-27—Series filament type. Net Each..... $3.65

GEMCO ISOLATION UNITS

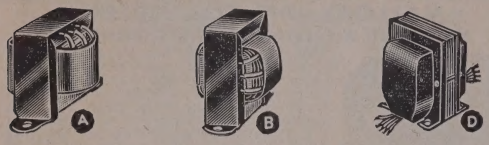
These units are designed to enable a CRT with a filament to cathode short to function perfectly.
Model 24—For conventional parallel CRT filament circuits. Net Each..... $3.55
Model 26—For use on CRT where filament is a series circuit arrangement. Net Each..... $3.55

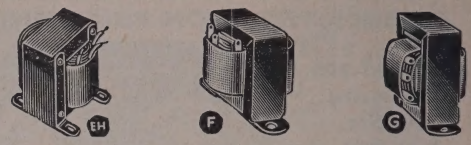
WORKMAN TV COMPONENTS



Powdered Iron Core Kit (Fig. A). Serviceman's assortment of five iron cores, 4.5 to 30 mc. Will replace 80% of Discriminator, Radio Detector, Sound IF, Video IF, Video Peaking, Coil, Hor. Oscillator, Hor. Frequency, Hor. Lock, Hor. Discriminator, Linearity Coil, Width Coil in servicing TV sets. 57c
Workman No. PS-10—Powdered Iron Core Kit. Net Each
Resistor Kit (Fig. B). Temperature sensitive filament resistors for 100% replacement in GE sets. Full instructions for installation. Also for Motorola, Hoffman, Sears, Pathe, Teletone, and in Canada, GE, RCA, Marconi. $1.44
Workman No. FR-2—Resistor Kit. Net Each.....
High Voltage Filter Resistor (Fig. C). For doubler circuits. Composition carbon. Non-inductive. 2 megohm resistance, 3.5 watts rating. Net Each..... 57c

Merit Television Components





HORIZONTAL OUTPUT AND HI-VOLTAGE TRANSFORMERS

Merit No.	Picture Tube	Equivalent Type Exact Replacem't For	Mtg. Type	Net Each
HVO-3	7DP4-10BP4	RCA 211T1-211T3	HVO-5	$4.80
HVO-5	16AP4 etc.	RCA 211T5	HVO-5	6.00
HVO-7*	10"-24"	HVO-6, GE77J1‡	HVO-7	7.20
HVO-X7*†	10"-24"	GE 77J1‡	HVO-7	9.00
HVO-8	10"-24"	Air Core	HVO-9	3.90
HVO-9	17"-24"	RCA 230T1	.....	6.00
HVO-10*	10"-21"	Fast retrace‡	HVO-7	6.00
HVO-11	10"-19" rd.	Zenith under chassis	.....	5.40
HVO-12	10"-20"	Motorola	.....	6.00
HVO-13	10"-21"	Sylvania	.....	4.95
HVO-15	10"-16"	Philco	.....	8.10
HVO-16	10"-16"	Philco	.....	8.10
HVO-17	10"-16"	Philco	.....	8.10
HVO-18	10"-16"	Philco	.....	7.50
HVO-19	16"-24"	Philco	.....	6.30
HVO-20	16"-24"	Philco	.....	6.75
HVO-21	16"-24"	Philco	.....	6.45
HVO-22	16"-24"	Admiral	.....	6.30
HVO-23	16"-24"	Admiral	.....	6.30
HVO-24	16"-24"	Admiral	.....	6.30
HVO-25	16"-24"	Emerson	.....	6.30
HVO-26	16"-24"	CBS-Columbia	.....	6.30
HVO-27	16"-24"	CBS-Columbia	.....	6.30
HVO-28	16"-24"	Motorola	.....	7.95
HVO-29	16"-24"	Motorola	.....	7.95
HVO-30	16"-24"	Motorola	.....	7.95
HVO-31	16"-24"	Muntz	.....	6.30
HVO-32	24"-27"	Muntz	.....	6.60
HVO-33	16"-24"	RCA	.....	3.90
HVO-34	16"-24"	RCA	.....	4.05
HVO-35	16"-24"	RCA	.....	6.30

*Universal Mounting. †Corona-Free Insulation. ‡Plus AFC-AGC

DEFLECTION YOKES

Merit No.	Tube Size	Inductance Horizontal	Inductance Vertical	Deflect. Angle	Net Each
MD-12	10"-16"	8mh+10%	48mh+10%	53°	$5.40
MD-13	10"-16"	30mh+10%	48mh+10%	53°	5.40
MDF-74*†	14"-24"	28mh+10%	3mh+10%	70°	6.00
MDF-70*	14"-24"	10mh+10%	45mh+10%	70°	6.00
MDF-71*	14"-24"	30mh+10%	50mh+10%	70°	6.00
MDF-72*	14"-24"	13mh+10%	41mh+10%	70°	6.00
MDF-73*	14"-24"	19mh+10%	40mh+10%	70°	6.00
MDF-75*	14"-24"	Exact Motorola Replace't		70°	6.00
MDF-76*#	14"-24"	Exact RCA Replacement		70°	6.00
MDF-90	27"-30"	.....	.....	90°	9.00

*Cosine Ferrite Core. †Replaces MDF-30 (improved type). #Includes octal plug.

WIDTH AND LINEARITY COILS

Merit No.	Range, mh.	Resistance, Ohms	Equivalent Type	Mtg	Net Each
MWC-1*	4.29	28.3-29.4	None	0	$1.35
MWC-2	0.2-4.0	7.15	RCA 208R1, 201R1, 201R4	0	.66
MWC-3	20-60	47.5	None	0	1.14
MWC-4†	0.2-3	7.12	RCA 201R5	0	.75
MWC-5†	1-5	6	RCA 207R1, 209R1	0	.75
MWC-6	1.5-10	8	RCA 211R1, 213R1	0	.75

*Secondary provided for AGC-AFC. †Tapped.

HORIZONTAL SCAN CHOKE (FIG. B)

Exact replacement for Sylvania 241-0002. 1 23/32" mounting centers. 1 11/16" high, 2" wide, 1 3/4" deep.
Merit No. C-2980—Net Each..... $2.10

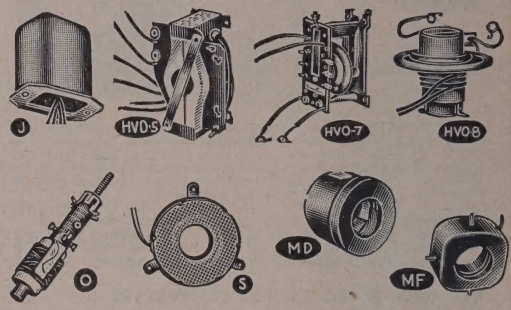
BLOCKING OSCILLATOR TRANSFORMERS

Merit No.	Type	Turns Ratio	Mtg. Centers	Dimensions H x W x D	Net Each
A-3000†	Vert.	1:4.2	2	1 3/8 x 2 3/8 x 1 1/4	$1.59
A-3001†	Vert.	**	2 3/8	1 5/8 x 2 13/16 x 1 1/2	2.40
A-4000*	Vert.	1:4.2	1 15/16	1 3/4 x 2 5/32 x 1 1/2	1.95
A-3002†	Hor.	2:1	2	1 5/8 x 2 3/8 x 1 1/4	1.80
A-3003†	Vert.	1:4.2	1 3/4	1 5/16 x 2 1/8 x 7/8	1.50
A-3004#	Vert.	1:1.5	1 3/4	1 3/4 x 2 x 1 1/2	1.65
A-4002*	Hor.	2:1	1 15/16	1 3/4 x 2 5/16 x 1 1/2	2.25
A-4003††	Vert.	1:4.2	1 3/16	1 5/16 x 1 3/16 x 1 5/16	1.95

**Pri/Sec 1, 1:2.08; Pri/ Sec 2, 1:1. †Mtg. Fig. A. *Mtg. Fig. J. #Mtg. B, Philco. ††Mtg. JL.

TV ISOLATION FILAMENT TRANSFORMER (FIG. A)

Merit No. P-3097—Isolates damper tube. Primary, 6.3v. Sec., 12.6v., 1 amp or 6.3v., 1.2 amp. Net Each..... $2.22



FOCUS COILS

Merit No.	DC Resist. Ohms	Tube Size	RCA	Mtg. Type	Net Each
MF-1	247	10"-12"	202D1	MF	$4.95
MF-2	470	16"	202D2	S	6.60
MF-3	360	10"-12"	.....	MF	4.95
MF-4	1000	14"-20"	.....	S	6.60
MF-5	1500	14"-20"	.....	S	6.60

FILAMENT TRANSFORMERS FOR SELENIUM RECTIFIERS (MTG. EH)

Type	Sec. Volts	Sec. Amps.	H x W x D	Net Each
P-3085	2.6 V. CT	3	2 13/16 x 3 3/8 x 2 3/4	$ 4.20
P-3086	104 V. CT	3	4 3/8 x 5 1/4 x 4 1/4	12.00
P-3087	78 V. tapped @ 26 & 52	6	5 11/16 x 6 1/8 x 5 7/8	22.80
P-3088	13 Volts	12	3 7/16 x 4 1/8 x 3 1/4	7.20
P-3089	104 V. CT	6	5 11/16 x 6 1/8 x 6 5/8	25.20
P-3090	156 V. tapped @ 104 V.	3	5 11/16 x 6 1/8 x 5 7/8	24.00
P-3091	130 V. tapped @ 104 V.	12	7 1/16 x 9 11/16 x 7 1/2	72.00
P-3092	156 Volts	6	6 1/16 x 7 1/16 x 7	42.00
P-3093	36 V. CT	10	4 3/8 x 5 1/4 x 4 3/4	16.20
P-3094	72 V. CT	10	6 1/16 x 7 1/16 x 5 3/4	30.00

UNIVERSAL OUTPUT TRANSFORMERS

Merit No.	Tube	Pri. Impedance Ohms X 1000	Max. Watts	Dim. *	Net Each
A-2900	Sgle. or PP	4, 7, 8, 10, 14CT	4	A†	$1.65
A-2901	Sgle. or PP	4, 7, 8, 10, 14CT	8	B†	1.80
A-2902	Single	1.5, 2, 4, 5, 7, 10	10	B†	1.80
A-2904	Sgle. or PP	4, 7, 8, 10, 14CT	18	C††	2.40

***A**—1 3/8 x 2 3/8 x 1 1/4. **B**—1 5/8 x 2 13/16 x 1 1/2. **C**—2 1/4 x 2 7/8 x 1 7/8. †Mounting Fig. F. ††Mounting Fig. G.

VIBRATOR TRANSFORMERS (12 VOLT)

Merit No.	Sec. DC V.	Sec. Ma.	Dim., HWD	Mtg.	Net Ea.
P-2978	260	60	2 5/16 x 2 5/8 x 1 7/8	C	$3.00
P-4051*	265	55	3 1/4 x 2 3/8 x 2 5/8	JG	4.20
P-4052*	280	65	3 7/8 x 2 1/4 x 2 3/8	JT	4.50

*Built-in Hash Filter

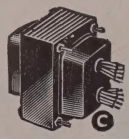
TV CONVERSION-REPLACEMENT KIT

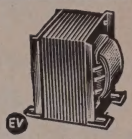
Contains one each MDF-70, HVO-7, MWC-1.
Merit No. 1000—Net Each..... $13.63

ASK FOR THE LATEST MERIT TV REPLACEMENT GUIDE FORM No. 407 FOR USE OF THE COMPONENTS LISTED ON THESE PAGES.

199-54C

Merit Television Components





POWER TRANSFORMERS—MOUNTING FIG. C

Receiver Replacement Type—Primary for 115 Volts, 60 Cycles, Leads RETMA Color Coded.

Merit No.	H.V. Secondary Volts	H.V. Secondary D.C. M.A.	Rectifier Volts	Rectifier Amps.	Fil. Wdgs. Volts	Fil. Wdgs. Amp.	Mounting Centers	Dimensions Height	Dimensions Width	Dimensions Depth	Net Each
P-2951	325-325	70	5	3	6.3 c. t.	3.5	2 x 2½	2½	3	3 7/16	$ 4.65
P-2952	350-350	90	5	3	6.3 c. t.	3.5	2¼ x 2 13/16	2 13/16	3⅜	3¾	5.10
P-2953	350-350	120	5	3	6.3 c. t.	4.7	2½ x 3⅛	3⅛	3¾	3 13/16	5.85
P-2954	375-375	150	5	3	6.3 c. t.	5	2½ x 3⅛	3⅛	3¾	4 5/16	7.50
P-3053	375-375	170	5	3	6.3	7‡	3 x 3¾	3¾	4½	5⅝	15.00
	325-325	130	5	3	6.3	7‡					
					6.3 or 5	2.7					
P-3054	350-350	180	5	6	6.3	10	3 x 3¾	3¾	4½	5⅝	12.60
	220-220	70			6.3	2.7					
P-3055	300-300	400	5	6	6.3	10	3 x 3¾	3¾	4½	5⅝	13.50
					6.3	4.5					
P-3059	360-360	250	5	2	6.3	2.7	3 x 3¾	3¾	4½	5⅛	15.00
			5	3	6.3	9					
P-3061	362-362	295	5	6	12.6 c. t.	5	3 3/16 x 4 1/16	4 23/32	3 27/32	6 13/16	16.50
					5	2					
P-3063	360-360	250	5	3	6.3	9	3 3/16 x 4 1/16	4 23/32	3 27/32	5 11/16	13.50
					6.3	1.2					
					5	2					
P-3066	375-375	170	5	3	12.6 c. t.	5	3 x 3¾	3¾	4½	5⅜	15.00
	325-325	130	5	3	6.3	2.6					
			5	2							
P-3067	400-400	220	5	3	6.3	10	3 x 3¾	3¾	4½	5⅜	15.00
	212-212	90	5	3	6.3	2.6					
			5	2							
P-3069†	350-350	225	5	3	6.3	10	3 x 3¾	3¾	4½	4¼	13.50
					6.3	2.7					
P-3070	350-350	225	5	3	6.3	10	3 x 3¾	3¾	4½	4	12.75
					6.3	2.7					
P 3071†	360-360	180	5	3	6.3	9	2¾ x 3 7/16	3 7/16	4⅛	4 9/16	13.50
P-3072	360-360	180	5	3	6.3	9	2¾ x 3 7/16	3 7/16	4⅛	4 5/16	12.75
P-3073†	322-322	180	5	3	6.3	10	3 x 3¾	3¾	4½	5	16.50
	205-205	70			6.3	2.7					
P-3076	270-270	300	5	3	6.3	6.5‡	3 x 3¾	3¾	4½	5	14.40
	180-180	200			6.3	6.5‡					
P-3077	300-300	250	5	3	6.3	9	3 x 3¾	3¾	4½	4¼	10.95
P-3078	360-360	275	5	3	6.3	9	3 x 3¾	3¾	4½	5	14.10
					6.3	1.5					
					6.3 or 5	2.7					
P-3079	140	300			6.3	9	3 x 3¾	3¾	4½	3¾	8.85
	tap 117				6.3	2					
					6.3	2					

UPRIGHT MOUNTING TYPE (FIG. D)

P-3165	350-350	200	5	2	6.3	.6	3 x 3⅞	4⅝	3¾	5	11.25
			5	3	6.3	7					
P-3166	400-400	300	5	3	12.6 c. t.	10	3½ x 4¼	5½	4⅜	5¾	18.90
			5	6							
P-3169	390-390	160	5	3	6.3	8	3 x 3⅝	4⅝	3 15/16	4¾	16.20
	325-325	130	5	3	6.3	4					
			5	2							
P3170	1750	2	2.5	2	6.3	.9	2 x 1 15/16	3⅛	2⅝	2⅞	6.60
					or 2.5	2					
P-3171	2500	5	2.5	2	6.3	3	2½ x 2 3/16	3⅞	3 3/16	3⅜	8.70
					or 2.5	3					
P-3174	405-405	240	5	3	6.3	6	3⅝ x 3⅞	5 15/16	4 7/16	5⅝	24.00
	325-325	200	5	3	6.3	6					
			5	3	6.3	2.6					

†Socket Type—See Figures CS. ‡Can be used in series for 12.6 volts.
All TV Powers are Fully Flux and Static Shielded with Copper Shorting Band.

FILTER CHOKES

FILTER CHOKES (MOUNTING TYPE A)

Merit No.	Ind. H.	Ma.	DC Ohms	DC Insul.	Mtg. Ctrs.	Dimensions H x W x D	Net Each
C-2973	1.5	10	95	1500	1¾	1 3/16x1 1/16x1	$1.05
C-2974	2.0	200	50	1500	2 13/16	2x3¼x1⅝	2.31
C-2977	4.5	50	200	1500	2⅜	1⅝x2 13/16x1½	1.32
C-2991	2	250	53	2000	3 5/16	2 9/16x3 11/16x2	2.64
C-2994	1.5	200	90	1500	2⅜	1⅝x2 13/16x1⅝	1.35
C-2995	8.0	100	375	1500	2 13/16	2x3¼x1⅝	1.80
C-2996	1.0	300	60	1500	3⅛	2¼x3 11/16x2	2.10
C-3181*	10	200	140	3000	2¼ x 2⅜	3½x2 15/16x3½	4.80

*Mounting D.

LINE VOLTAGE REGULATORS (MTG. D)

Adjust voltages of 65-75-90-100-115-130-145v. to 115v., 50/60 cps. Voltmeter, line cord and plug, variable switch, light, receptacle.

Merit No.	Watts	Dimensions, HxWxD	Net Each
P-3138	350	4⅛x3 13/16x5¾	$15.00
P-3139	750	5⅞x4⅛x8½	27.00

TV AUTOTRANSFORMER

Provides TV picture tube booster voltage.
P-3098—Input Volts 6.3. Output Volts 12.6, taps at 9.45-6.3. 1 amp. Mtg. Ctrs. 2⅜". Dimen. 1⅝x2 13/16x1¼". Mtg. A Net **$1.50**

VERTICAL OUTPUT TRANSFORMERS

Merit No.	Turns Ratio	Mtg. Centers	Dimensions H x W x D	Mtg. Type	Net Each
A-3035	10:1	1 15/16x2	3⅛x2 11/16x2½	EV	$3.75
A-3036	10:1	2 13/16	2x3¼x2	A	2.55
A-3037*	11.4:1	2 13/16	2x3¼x1⅝	A	2.55
A-3038	10:1	3⅛	2¼x3 11/16x2¼	A	3.30
A-3039*	18:1	3⅛	2¼x3 11/16x2⅛	A	3.30
A-3080	25:1, 50:1	3⅛	3x3 9/16x2¼	B	3.60
A-3081*	30:1, 50:1	3⅛	2¼x3 11/16x2¼	A	3.90

*Auto Type.

FILAMENT TRANSFORMERS (MTG. A)

Merit No.	Sec. Volts	Sec. Amp.	Insul. Volts	Dimensions H x W x D	Net Each
P-2944	6.3 ct	1	2500	1⅝x2 13/16x1½	$1.80
P-2945	6.3 ct	2	2500	2x3¼x1⅝	2.16
P-2946	6.3 ct	3	2500	2x3¼x1⅞	2.70
P-2948*	6.3 ct	10	2500	3 7/16x2 13/16x2⅞	4.50
P-3040	5 ct	3	2500	2x3¼x2⅛	2.70
P-3041	5 ct	3	2500	2½x4x2⅛	4.29
	6.3 ct	3.6			
P-3074	6.3	1.2	5000	2x3¼x2	2.25
P-3097†	12.6, 6.3	1, 1.2	5000	1⅞x3¼x2	2.22

†Isolation type. 6.3 Prim. *Mounting Figure EV.

199X-54A

TV Transformers by Stancor

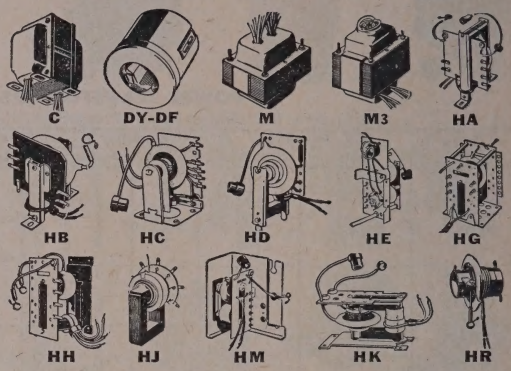
STANCOR

POWER TRANSFORMERS

All Primaries for 117 volt, 60 cycle operation. **All plate windings center tapped.**

Stancor No.	Plate V.	Plate Ma.	Rec. Fil. V.	Rec. Fil. A.	Other Fil. Volts	Other Fil. A.	Mounting HxWxD	Net Each
P-5059*	675	200	5.0†	3.0	6.3CT	5.0	C/4⅜x4¾x4	$10.14
P-6315	740	275	5.0†	3.0	6.3CT	7.0	M/4¼x3¾x4½	11.70
P-8154	750	205	5.0	3.0	5.0 6.3	2.0 5.6	M/4¼x3¾x4½	11.10
P-8155	450	90	5.0	2.0	6.3	5.15	M/3¾x2 13/16x3⅜	6.66
P-8156	730	295	5.0	6.0	5.0 12.6CT	2.0 5.0	M‡/6⅝x 3 13/16x4¾	17.49
P-8157	770 470	195 105	5.0 5.0	3.0 2.0	6.3 6.3 5.0	7.65 0.6 2.0	M/4¾x3¾x4½	15.06
P-8158 For use in Voltage Doubler Circuits.	117	200			6.3 6.3 6.3	4.25 4.0 2.0	M‡/3½x3 7/16x4⅛	9.51
P-8159	720	250	5.0	3.0	5.0 6.3 6.3	2.0 8.0 0.6	M‡5 5/16x3 13/16x4¾	14.10
P-8160	716	185 65	5.0	3.0	6.4,5	12.0	M/4¼x3¾x4½	12.15
P-8161	770	230 5.0	5.0 5.0	3.0 2.0	6.3	9.0	M‡/5 9/16x3 13/16x4¾	16.11
P-8162	760	180	5.0†	3.0	6.3	9.0	M3‡/5½x4⅛x3 7/16	11.55
P-8163	740	190	5.0	3.0	6.3 6.3	7.75 1.2	M‡/5 9/16x3 13/16x4¾	14.46
P-8164	600	225	5.0	3.0	6.3	9.0	M‡/4⅛x3 7/16x4⅛	12.06
P-8165	700 440	180 70	5.0	3.0 3.0	6.3 6.3	2.0 10.0	M‡/4¾x3¾x4½	17.16
P-8166 May be used in series as 12.6v CT	680	330	5.0	6.0	6.3 6.3 6.3	2.5 5.0 5.0	M‡/6x3 13/16x4¾	17.73
P-8167	560	400	5.0	6.0	6.3 6.3	4.5 8.5	M‡/6x3 13/16x4¾	17.10
P-8168 May use in series as 12.6CT	440 260	330 220	5.0	3.0	6.3 6.3 6.3	6.5 6.5 6.5	M‡/4⅞x3¾x4½	15.99
P-8169 May be used in series as 12.6v CT	760	220	5.0	3.0	6.3 6.3 6.3	1.2 5.0 7.0	M‡/4⅝x3¾x4½	14.19
P-8170 May be used in series as 12.6v CT	760	220	5.0	3.0	6.3 6.3 6.3	1.2 5.0 7.0	C/4¾x4x4¾	13.80
P-8171	750	225	5.0	3.0	6.3 6.3	2.0 9.0	M3‡/5x3¾x4½	14.16
P-8331	620	240	5.0	3.0	6.3 6.3	6.4 3.0	M‡/4½x3¾x4½	11.25
P-8332	560	260	5.0	5.0	6.3 6.3 6.3	7.1 1.2 .9	M‡/4¾x3¾x4½	12.30
P-8333	590	225	5.0†	3.0	6.3 6.3	11.4 .9	M3‡/4¾x3¾x4½	11.70
P-8334	550	305	5.0	5.0	6.3 6.3	8.5 1.2	M‡/5⅛x3¾x4½	13.65
P-8335	600	325	5.0	6.0	6.3 6.3	8.8 1.5	M‡/5x3¾x4½	13.65
P-8336 For use in Voltage Doubler Circuits.	117	280			6.3 6.3 6.3	9.5 0.6 1.2	M‡/4¼x3¾x4½	9.60
P-8337	630	225	5.0	3.0	6.3	8.25	M3/4½x3¾x4½	12.06
P-8338	630	310	5.0	6.0	6.7 6.4	10.0 1.6	M‡/5¼x3⅞x4¾	12.24
P-8339	650	255	5.0	3.0	12.6CT	5.25	C/4⅞x3¾x5	10.05
P-8340	710	270	5.0	6.0	6.3 6.3 6.3	9.5 1.65 2.4	M‡/4¼x3¾x4½	12.72
P-8341	720 440	175 110	5.0 5.0	3.0 2.0	12.6CT	5.45	C‡/4⅞x3¾x4⅞	12.06
P-8342	730	260	5.0	6.0	6.3 6.3	8.85 1.2	M‡/5¼x3¾x4½	12.06
P-8343	720 440	220 110	5.0 5.0	3.2 2.0	12.8CT	5.8	C/4⅞x3¾x5¼	12.30
P-8344*	730 400	170 84	5.0 5.0	3.2 2.0	12.6	4.25	C/4⅞x3¾x4½	11.70
P-8345	700	215	5.0	3.0	6.3 6.3	9.0 1.2	M‡/5x3¾x4½	12.06
P-8346	800 660	180 180	5.0 5.0	3.0 3.0	....	....	C/4⅝x3¾x4¾	14.70
P-8347	770	230	5.0	3.0	5. 6,45 6.3	2 7.4 1.6	M‡/5⅜x3¾x4½	16.95
P-8348	730	270	5.0	6.0	6.7	4.5	M‡/4¾x3¾x4½	14.34
P-8349	720	260	5.0	6.0	5.0 6.3	2 8.85	M‡/5¼x3¾x4½	16.74
P-8350	700	270	5.0	6.0	5.0 6.3 6.6	2 1.6 7.8	M‡/5¼x3¾x4½	13.68
P-8351	720	240	5.0	6.0	6.5	9.3	M/4¾x3¾x4½	14.34
P-8352	580	240	5.0	3.0	12.6CT	5.25	C/4⅞x3¾x4¾	11.91
P-8353	530	300	5.0	6.0	12.6CT	6.0	C3/5¾x3¾x5¼	15.60
PM-8411	750	150	5.0	3.0	6.3CT	4.5	M/3⅞x3½x4⅛	7.62
PM-8412	800	200	5.0	3.0	6.3CT	5.0	M/3⅞x3¾x4½	8.58

*Primary for 117/107 volts. †Center tapped. ‡With copper shorting band to reduce external magnetic field.



DEFLECTION YOKES

All Stancor deflection yokes have ferrite cores and cosine distributed windings for anti-astigmatic focusing. All units with an "A" suffix have networks and extra long leads. The networks have a capacitor **across each half** of the horizontal coils. There will always be a capacitor across the "high" half of the yoke—regardless of circuit variations. Network rewiring is virtually eliminated. All yokes have molded coil forms that automatically orient the coils to provide a minimum of "cross-talk". Shipping Weight, 1.0 lbs. Case Diameter, 3⅛".

Stancor No.	Induc., Mh. Hor.	Induc., Mh. Vert.	Res., Ohms Hor.	Res., Ohms Vert.	Max. Scan	Mtg. Type	Unit Lgth.	Net Each
DY-1A	8.3	50	13.5	66	53°	DY	3"	$4.74
DY-2A	10.3	50	14.5	66	70°	DF	2¾"	6.00
DY-7A	8.5	50	13.5	50	70°	DY	2¾"	5.37
DY-8A	8.5	50	14.5	52.5	70°	DF	2¾"	6.00
DY-9A	13.5	50	17.5	53.5	70°	DF	2¾"	6.00
DY-10A	30.0	3.5	45	3.5	70°	DF	2¾"	6.00
DY-11A	20.0	50	23	50	70°	DF	2¾"	6.00
DY-12A	30.0	50	34	50	70°	DF	2¾"	6.00

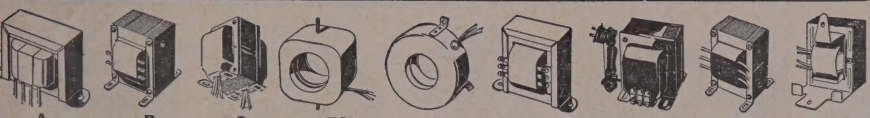
HORIZONTAL DEFLECTION AND HIGH VOLTAGE (FLYBACK) TRANSFORMERS

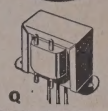
Stancor exact replacement flybacks are built from the set manufacturer's original specifications. They are exact electrical and physical duplicates of the units they are designed to replace. No circuit or chassis alterations are required for their installation.

Stancor No.	Approx. Anode KV	Exact Replacement For	Mtg. Type	Net Each
A-8119	13–14	RCA 211T5	HH	$6.96
A-8127	9–10	RCA 211T1 and 211T3	HH	5.79
A-8128	10–11	Admiral 79C23-3; 79C28-1; Airline 22E42, many others	HO	6.54
A-8129	12–13	Conversion unit	HH	6.39
A-8130	10–14	Universal unit	HG	6.00
A-8131	11–13	For sets with direct drive	HR	3.90
A-8132	13–15	Muntz TO-0031	HM	6.30
A-8133	12.5–15	Admiral 79C30-1, 79C30-3	HA	6.30
A-8134	12.5–15	Admiral 79C30-2, -4; 79C38-1, 79D38-1	HA	6.30
A-8135	13–15	Admiral 79D41-1, -2; Sheraton Video EL-106, EL-119, EL-119B	HB	6.45
A-8136	13–15	Philharmohic 80-263, -265, -265-2	HP	6.00
A-8137	13–15	Hoffman 5035	HC	6.00
A-8220	13–15	Philco 32-8565, inc. term. bd.	HD	6.39
A-8221	13–15	Philco 32-8555 with capacitor, resistance and choke	HD	6.75
A-8222	13–15	Philco 32-8533, 32-8534, including terminal board components	HD	6.42
A-8223	13–15	Philco 32-8572 with choke coil on terminal board	HC	5.79
A-8224	13–15	Motorola 24C711265, 24C711-26A, 24C721290	HE	7.86
A-8225	13–15	Motorola 24K71213	HE	7.86
A-8226	13–15	Motorola 24K721301, 24K721301C, 24K721517C	HE	7.86
A-8227	13–15	Sylvania 241-0003	HJ	4.32
A-8228	13–15	Sylvania 241-0005, -0006	HJ	4.62
A-8229	13–15	Sylvania 241-0007	HJ	4.86
A-8230	13–15	Air King, CBS-Col., Silvertone 10104, 10107, 10108, 10110, 10126, 10135	HK	6.30
A-8231	13–15	CBS-Col., Silvertone 10136, 10136B, 10137, 10138, 10159	HK	6.30
A-8232	13–15	Emerson 738067, 738068, -69, 738073, -74, -75, 738082	HL	6.30
A-8233	13–15	RCA 76430, 76795	HC	6.21
A-8234	13–15	RCA 76501	HN	3.78
A-8235	13–15	RCA 75519, 75585, 76381	HN	4.11

2-54C

TV Transformers by Stancor





HORIZONTAL BLOCKING OSCILLATOR TRANSFORMERS

Stancor No.	Turns Ratio Pri./Sec.	Dimensions H x W x D	Mtg. Type	Shpg. Wt.	Net Each
A-8110	2:1	1½ x 1½ x 2½	A	0.4 lbs.	$1.83
A-8120	2:1	1¾ x 1½ x 2 5/16	TD	0.4 lbs.	2.58

TV BOOSTER TRANSFORMERS

Stancor No. P-8181—Plate supply: 150 volts AC, half wave; 25 ma. DC. Filament: 6.3 volts, 0.5 amps. Height: 2". Base Area: 2 7/16" x 1¾". Mtg. Ctrs.: 2". Mounting Type: VE. Shipping Weight, 0.8 lbs. Net Each..... $2.61

WIDTH AND LINEARITY CONTROLS—MTG. WC

Stancor No.	Application	Inductance, Mh.	Ohms	Shpg. Lbs.	Net Each
WC-1	Width Coil	.050-.50	0.53	0.3	$0.75
WC-2	Tapped Linearity Coil	.55-4.6	8.3	0.3	.75
WC-4	Width Coil	.170-.610	1.0	0.3	.72
WC-5	Width Coil and/or Linearity Coil	4-39	32	0.3	1.26
WC-6	Tapped Linearity Coil	1.3-4.1	5.6	0.3	.78
WC-7	Width Coil	.5-3.5	2.3	0.3	.75
WC-8	Width Coil	1.0-10.0	8.0	0.3	.90
WC-9	Width Coil with keyed winding	3.2-9	28.0	0.3	.96
WC-10	Width Coil with AGC	4.0-28	32.0	0.3	1.05

VERTICAL DEFLECTION OUTPUT TRANSFORMERS

Stancor No.	Turns Ratio Pri./Sec.	Primary Ohms Impedance	Overall Dim., Inches	Mtg.	Net Each
A-8112	10:1	18000@12DCMa	2 x1¾x3¼	A	$2.61
A-8113	8.8:1	16500@10DCMa	2 x1¾x3¼	A	2.67
A-8115	10:1	19000@15DCMa	3 1/16x2½x2½	N	3.96
A-8116	10:1	18000@10DCMa	3 1/16x2¼x2½	N	3.63
A-8123*	11.4:1	17000@20DCMa	2 x1¾x3¼	A	2.43
A-8140	44:1	11000@20DCMa	3 1/16x2½x2½	N	4.11
A-8141*	18:1	30000@10DCMa	2¼x3¾x2⅛	A	3.51
A-8142	8:1	19000@13DCMa	2⅜x2¼x3	N	3.06
A-8143	10:1	14000@15DCMa	2¼x2¼x3⅝	A	2.61
A-8144	9:1	9500@30DCMa	2¼x1¾x3⅝	A	2.31
A-8145	9:1	11000@19DCMa	2⅜x2¼x2½	N1	3.45
A-8146*	6.9:1	6000@15DCMa 4700@50DCMa	2 x1⅞x3¼	A	2.40
A-8147*	6:1	3200@40DCMa	2 x1¾x3¼	A	2.10
A-8148*	8:1	6000@15DCMa 4700@50DCMa	2 x1⅞x3¼	A	2.55
A-8149*	6.9:1	11500@20DCMa	2 x1⅝x3¼	A	2.19

Autoformer type.

VERTICAL BLOCKING-OSCILLATOR TRANSFORMERS

Stancor No.	Turns Ratio Pri./Sec.	Ht., In.	Base Area	Mtg. Ctrs.	Mtg. Type	Shpg. Wt.	Net Each
A-8111	1:4.2	1½	1½x2½	2	A	0.4	$1.62
A-8121	1:4.2	1¾	1½x2 5/16	1 15/16	TD	0.4	2.07
A-8122	1:4.2	1 9/16	1 15/16x1 9/16	1 13/16	TS	0.3	2.52
A-8124	*	1⅝	1⅝x2⅞	2⅜	A	0.7	2.49
A-8125	1:4.2	1 3/16	2 3/16x1¼	1¾	A	0.4	1.62
A-8126	1:1.5	1¾	1½x2	1¾	S	0.5	1.65

Sec. #1 1:0.48. Sec. #2 1:1.

FILTER CHOKES

Stancor No.	Inductance, Henries, at Rated DC Ma.	75% Ma.	115% Ma.	DC Ohms	Mtg. Type	Net Each
C-1001	10.5hy. 110ma	11.5	9.0	225	A	$2.67
C-1080	3.5hy. 50ma	4.0	2.8	200	A	1.29
C-1215	9.0hy. 50ma	10.5	8.0	500	A	1.23
C-1325	5.0hy. 50ma	5.8	4.2	250	A	1.38
C-1410	4.0hy. 175ma	4.7	3.5	100	C	3.78
C-1411	4.5hy. 200ma	5.5	3.8	80	C	4.29
C-1412	4.0hy. 250ma	4.5	3.5	60	C	6.27
C-1646	5.0hy. 200ma	7.0	3.7	90	C	5.40
C-1703	4.0hy. 250ma	4.5	3.5	60	B	5.46
C-1706	4.5hy. 50ma	5.5	3.5	300	A	1.11
C-1707	7.0hy. 50ma	8.5	5.0	550	A	1.17
C-1709	9.0hy. 85ma	10.5	7.5	250	A	2.04
C-1721	8.5hy. 200ma	9.5	7.5	120	N	4.92
C-1722	8.0hy. 300ma	8.5	7.0	80	N	8.16
C-2303	2.5hy. 130ma	3.0	2.1	100	A	1.86
C-2304	2.3hy. 150ma	2.6	2.0	60	A	1.92
C-2309	3.0hy. 150ma	3.6	2.5	90	A	2.31
C-2325	2.0hy. 200ma	2.5	1.5	60	A	2.31
C-2326	1.0hy. 300ma	1.5	0.6	43	A	2.61
C-2327	1.5hy. 200ma	1.7	1.3	85	A	1.47
C-2328	0.8hy. 375ma	1.0	0.65	25	A	3.03
C-2334	2.8hy. 300ma	3.3	2.2	60	A	2.55

FOCUS COILS

Stancor No.	DC Ohms	Max. DC Ma.	Dimensions, In. H x W x D	Mtg. Type	Shpg. Wt.	Net Each
FC-10	247	200	3 11/16 x 3 11/16 x 1 29/64	FC	2.0	$5.13
FC-11	470	140	4¾ Diam. x 1⅛	FO	3.2	6.54
FC-12	370	165	3 11/16 x 3 11/16 x 1 29/64	FC	2.0	5.13

ISOLATION TESTING TRANSFORMER

Stancor No. P-6415—Large enough to handle almost any TV or radio receiver on test. Presents three standard receptacles, providing output voltages of 105, 115 and 125, with 117 volts AC from the line, for testing purposes. May be employed to correct a high or low line voltage. Overall Height: 5⅜". Base Area: 4½" x 5½". Mounting Type KC. Shipping Weight, 17.0 lbs. Net Each..... $18.15

FILAMENT TRANSFORMERS

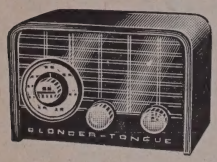
Stancor No.	Secondary Volts	Secondary Amps	Pri. Volts	RMS V. Insul.	Overall H x W x D	Mtg. Type	Net Each
P-3064	6.3CT	6.0	117	2500	3⅛x2½x2⅞	B	$3.75
P-6134	6.3CT	1.2	117	2500	1⅝x2⅞x1⅝	A	1.74
P-6308	6.3CT	10.0	117/107	2500	3½x2⅞x2¾	N	4.50
P-8190	6.3	1.2	117	5000	2 x3¼x1¾	A	2.28
P-8191	6.3	1.2	6.3	5000	2 x3¼x1¾	A	2.46

AUDIO OUTPUT TRANSFORMERS

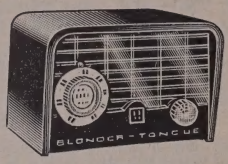
Stancor No.	Application	Pri. Ma.	Max. Watts	Dimensions H x W x D	Mtg. Type	Net Each
A-2313	Single plate, 7000 ohms, to 8 ohms V.C.	40	10	2 x3¼x3¾	A	$2.04
A-3303	P.P. plates, 14K ohms, to 500 15/8/4 ohms line	55	20	3 3/16x2⅝x2⅝	C	5.88
A-3330	Single plate, 2000 ohms to 3.5 ohms V.C.	50	5	1⅜x2⅜x1⅜	A	1.38
A-3332	Single plate, 2000 ohms to 3.2 ohm V.C.	50	3	1 3/16x2⅛x1	A	.96
A-3823	Single or PP plates, 4000-14000 ohms to Voice Coil	40	8	1⅝x2⅞x2⅜	Q	1.86
A-3824	A-3823 except 6K-10K ohms	75	8	2 x3¼x2	Q	2.97
A-3825	Single plate, 15K-45K ohms to Voice Coil	75	8	2 x3¼x1⅝	Q	2.37
A-3830	P.P. plates, 3K-10K ohms, to Voice Coil	60	20	2 11/16x3 5/16x2¼	J	3.24
A-3849	Single plate, 1.5K-10K ohms. to V.C.	55	10	1⅝x2⅞x1½	Q	1.89
A-3850	Single or P.P. plates, 4K-14K ohms, to V.C.	40	8	2 x2⅜x1½	J	2.16
A-3852	P.P. plates, 4K-14K ohms, to Voice Coil	40	18	2 5/16x2⅞x2	J	2.40
A-3856	Single or P.P. plates, 4K-14K ohms, to V.C.	35	4	1⅜x2⅜x1⅜	Q	1.74
A-3870	P.P. plates, 4K-14K ohms, to Voice Coil	50*	18	2 x3¼x2	Q	2.97
A-3876	Single Plate, 2K ohms, to 4 ohm V.C.	60	5	1⅜x2⅜x1⅜	A	1.14
A-3877	Single Plate, 5K ohms, to 4 ohm V.C.	40	5	1⅜x2⅜x1⅜	A	1.20
A-3878	Single Plate, 7K ohms, to 4 ohm V.C.	30	5	1⅜x2⅜x1⅜	A	1.17
A-3879	Single Plate, 10K ohms, to 4 ohm V.C.	30	5	1⅜x2⅜x1⅜	A	1.14
A-3880	P.P. Plates, 4K-14K ohms, to 3.2 ohm V.C.	40	15	2¼x3¾x2¼	Q	3.57
A-8114	Single Plate, 7600 ohms, to 3.2 ohm V.C.	32	5	1⅜x2⅜x1⅜	A	1.59

*50 Ma. each side.

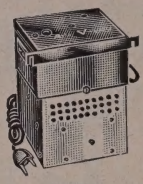
Blonder-Tongue Equipment



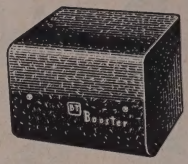
BTU-2



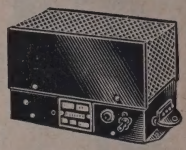
"99"



BTU-1



HA-3



CA-1

UHF Ultraverter Model BTU-2—Includes Ultratuner, most sensitive and compact tuner in the field; double-tuned, interference free UHF input AND fully shielded, no-drift oscillator section. Smoothest, fastest and most accurate tuning—dual speed channel selection. Exact 300 ohm impedance match at both UHF input and VHF output, plus unbeatable triode amplification—maximum usable signal power with no picture or sound distortion. Completely automatic "On-Off" operation with TV set. Handsome plastic cabinet styling to blend perfectly with any TV set. Weight, 4½ lbs. Net Each..... **$28.00**

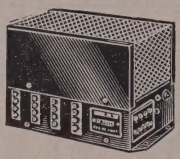
UHF Converter Model "99"—For Class A signal areas. Exact 300 ohm (input and output) impedance match; synchro-sharp input and oscillator tuning, for every UHF channel, eliminates multiple images and troublesome interference. Oscillator circuit thermally compensated for utmost frequency stability. Direct drive channel selector is smooth and precise, with a choice of either Channel 4, 5 or 6 as the IF output to the TV set. Covers entire UHF range without VHF channel switching. Weight, 4 lbs. Net Each..... **$14.97**

Ampliverter Model BTU-1—Converts single UHF channel to Channel 5-6 with 17 db (over 7 times) gain. Self-powered, automatic "On-Off" with TV set. 300 ohm UHF and VHF inputs and VHF bypass switch. Weight, 4½ lbs. Net Each..... **$38.85**

Model HA-3 Booster—Powerful, fully automatic, broadband. Features 3-stage push-pull cascade circuit. Boosts signal greater than 16 db on all 12 TV channels. No knobs, no tuning, no channel switching. Plug set into booster and booster into wall outlets. Switches on and off with set. Rear gain control switch permits attenuation of excessively strong signals. 3-6J6's. Matches 300-ohm line. 105-120 volts, AC. Size: 5" x 5¾" x 4". Shipping Weight, 4 lbs. Net Each..... **$23.70**

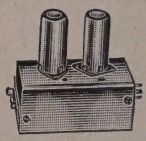
TV Commercial Antensifier Model CA-1—Amplifies VHF 27 db on all channels with gain control. Excellent line match, uniform response, quality components, dual-triodes throughout. 300-75 ohm transformers for superior match. Use with DA2-1 or DA8-1 in any combination to provide from 2 to 2000 outlets. 8" x 4½" x 5". Weight, 5 lbs. Net Each..... **$46.50**

DA2-1

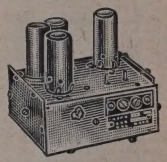


DA8-1

MA4-1



CS-1



UC-1

Distribution Amplifier DA2-1—2 electronically isolated outlets and one through line connection. Full strength signal reaches each TV set. ONE antenna, 75 and 300 ohm line. No connectors or transformers needed. Connects in series. 117 volts, 60 cps, 10 watts. 4" x 5" x 4". 2-6BC5 tubes. Net Each..... **$23.70**

Distribution Amplifier Model DA8-1—For 75 and 300 ohm lines, 8-outlet, fully isolated (35 db between each). Variable gain control. Automatic all-channel transmission. No signal loss. ONE antenna. Line output, 75-ohm only. 117 v., 60 cps. 30 watts. TUBES: 3-6J6; 1-6BC5. Shockproof metal cabinet. Net Each..... **$52.50**

Mixer Amplifier Model MA4-1—Low cost answer to all VHF and UHF multi-antenna problems. Amplifies all TV signals into any 75 ohm, 300 ohm or open wire transmission line. Eliminates need for antenna rotors, separate boosters, etc. Mixes and feeds signals of 5 antennas to 1 TV receiver or distribution system. One input is broadband for signals requiring no preamplification, and the remaining 4 accommodate separate plug-in strip assemblies. Several units may be ganged to serve any number of antennas. **Impedance:** 75 and 300 ohms at all terminals. **Plug-in strips:** Channel Strips **CS-1**—Single channel, highly selective amplifier. One for each channel. Gain exceeds 17 db. **Tubes:** 6AB4, 6CB6. UHF Converter Strip **UC-1**—Lowers UHF signals to existing TV frequencies. **Installations:** Ordinary screw-terminals. Hammertone grey metal cabinet, 4" x 6" x 8¾". **Model MA4-1**—Basic chassis. Contains power supply and signal mixing circuits. Net Each..... **$31.50**

VHF Channel Strip Model CS-1—Single channel amplifier for MA4-1. 17 db (over 7 times) gain. Highly selective, low noise circuits. 75 or 300 ohm input. Specify VHF channel. Weight, ¾ lb. Net Each..... **$12.90**

UHF Converter Strip Model UC-1—Single channel UHF converter for MA4-1. 17 db (over 7 times) gain on any fixed VHF channel. 300 ohm input. Specify both UHF and VHF channels. Weight, 1½ lbs. Net Each..... **$41.70**

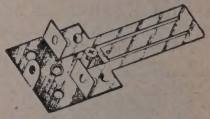
MT-1, LLE-1

WH-1

LS4-2

AT-1

RC-1



TR-3

Matching Transformer Model MT-1—Precise 75 and 300 ohm impedance match. May be used with antennas, transmission lines or TV sets. Weight, ½ lb. Net Each..... **$3.90**

Weather-Proof Housing Model WH-1—For outdoor installation of all B-T electronic units and accessories. Heavy gauge steel and aluminum construction, including mounting strap. Weight, 5 lbs. Net Each..... **$10.50**

Line Loss Equalizer Model LLE-1—Graduated attenuation from 17 db on Channel 2 to less than 1 db on Channel 13. Maintains balanced channel levels through long transmission line. Weight, 1½ lbs. Net Each..... **$5.70**

Line Splitters (Couplers)

Model LS4-1—Four 75 ohm lines from one 75 ohm line
Model LS4-2—Four 75 ohm lines from one 300 ohm line.
Model LS4-3—Four 300 ohm lines from one 75 ohm line.
Model LS4-4—Four 300 ohm lines from one 300 ohm line.
Weight, ½ lb.
Any one of above four models—Net Each..... **$4.50**

Attenuator Model AT-1—Reduces VHF signals 0 to 42 db in 6 db steps. Used as test device or to prevent overload in TV systems. Weight, ½ lb. Net Each..... **$7.50**

Remote Control Model RC-1—Two part device. TV signal and AC power on one line. Automatic "On-Off" with TV set or any booster, or other unit drawing up to .5 amp. at 117 volt AC. Weight, 1 lb. Net Each..... **$11.70**

Resistor Outlet Box Model R01-A—75 or 300 ohm TV tapoff from 75 ohm line. Passes VHF and UHF with 17 db isolation. Only ½ db insertion loss. Weight, ½ lb. Net Each..... **$3.30**

Thermo Relay Model TR-3—Opens and closes circuits in relay and time delay operations. Controls equipment drawing up to .5 amp. at 117 volts AC. Delay time from .1 to 4 seconds. Actuation power—100 to 500 watts. Patented bi-metal design, silver contacts and heat resistant fibre-glass board. Weight, ½ oz. Net Each..... **$1.12**

235X-54B

Howard W. Sams Publications

PHOTOFACT SERVICE MANUALS

Here's the radio-TV service data that saves time and helps you earn more! Preferred and used daily by thousands of Radio and TV Service Technicians. Complete, accurate—based on analysis of the actual equipment. Uniform treatment for each model. Includes Standard Notation Schematics; full chassis photo coverage; complete circuit analysis and replacement parts data; wave forms; alignment data; record changer analysis—everything you need for quick, profitable servicing. Each volume in deluxe binding.

VOL. 1. Post-war models to Jan. 1, 1947
VOL. 2. Jan. 1, 1947—July 1, 1947
VOL. 3. July 1, 1947—Jan. 1, 1948
VOL. 4. Jan. 1, 1948—July 1, 1948
VOL. 5. July 1, 1948—Dec. 1, 1948
VOL. 6. Dec. 1, 1948—May 1, 1949
VOL. 7. May 1, 1949—Oct. 1, 1949
VOL. 8. Oct. 1, 1949—Dec. 1, 1949
VOL. 9. Dec. 1, 1949—Mar. 31, 1950
VOL. 10. Mar. 31, 1950—July 31, 1950
VOL. 11. July 31, 1950—Oct. 31, 1950
VOL. 12. Oct. 31, 1950—Jan. 10, 1951
VOL. 13. Jan. 10, 1951—Apr. 15, 1951
VOL. 14. Apr. 15, 1951—Aug. 1, 1951
VOL. 15. Aug. 1, 1951—Nov. 1, 1951
VOL. 16. Nov. 1, 1951—Jan. 31, 1952
VOL. 17. Jan. 31, 1952—Apr. 31, 1952
VOL. 18. Apr. 31, 1952—July 1, 1952
VOL. 19. July 1, 1952—Nov. 1, 1952
VOL. 20. Nov. 1, 1952—Jan. 31, 1953
VOL. 21. Jan. 31, 1953—Apr. 31, 1953
VOL. 22. May 31, 1953—Sept. 15, 1953
VOL. 23. Sept. 15, 1953—Dec. 15, 1953
VOL. 24. Dec. 15, 1953—Apr. 1, 1954
VOL. 25. Apr. 1, 1954—June 30, 1954
VOL. 26. June 30, 1954—Oct. 30, 1954
VOL. 27. Oct. 30, 1954—Jan. 30, 1955

Each Volume **$21.00**
In DeLuxe Binder .....

PHOTOFACT FOLDER SETS

The easiest way to own the world's finest Radio-TV Service Data. Issued three to four sets per month. Per Set **$1.75**
Binders only for Photofact sets. **$3.50**

Free Photofact Cumulative Index. Tells you instantly which folder set contains the data you want. Lists sets by make and model.

Now you can own the complete PHOTOFACT Manual Library the easy-pay way. Available on amazingly easy terms—only $18.39 down—no interest, no carrying charges. Ask your jobber for full details.

HANDY SERVICE GUIDES

DIAL CORD STRINGING GUIDES

A series of books, covering thousands of receivers, clearly illustrating each dial cord system in a legible diagram that shows how to solve the knottiest stringing problem in seconds. Handy pocket size, 5½" x 8½.

Vol. 4 (No. DC-4). Receivers produced from mid-1951 through 1953. 96 pages.
Vol. 3 (No. DC-3). Receivers produced from 1950 through mid-1951. 96 pages.
Vol. 2 (No. DC-2). Receivers produced from 1947 through 1949. 96 pages.
Vol. 1 (No. DC-1). Receivers produced from 1938 through 1946. 112 pages. **$1.00**
Each Volume .....

RADIO RECEIVER TUBE REPLACEMENT GUIDE. Shows you exactly where to replace each tube in approximately 5500 receivers made from 1938 to 1948. Each tube layout is illustrated by a clear accurate diagram. 196 pages, 5½" x 8½". **$1.25**
No. TP-1 .....

INVALUABLE TELEVISION BOOKS

PHOTOFACT TELEVISION COURSE. A "must" for everyone interested in Television. Gives a clear, complete understanding of TV principles, operation and practice. With glossary of terms. 208 pages; 8½" x 11"; profusely illustrated. **$3.00**
No. TV-1 .....

TV SERVICING SHORT-CUTS. Describes actual TV service case histories, each presenting a specific problem. The symptoms of the trouble are outlined and then followed by explanation of how the serviceman localized and tracked down the defect. Finally, there is a detailed discussion of how this particular trouble could be tracked down and solved in **any** TV set. 100 pages, 5½" x 8½". Illustrated. **$1.50**
No. TK-1 .....

TV TEST INSTRUMENTS. Tells how each test instrument operates; describes functions of each control and shows proper adjustment. Covers: Vacuum Tube Voltmeters, AM Signal Generators, Sweep Signal Generators, Oscilloscopes, Video Signal Generators, Field Intensity Meters, Voltage Calibrators. 175 pages, 8½" x 11". Illustrated. **$3.00**
No. TN-1 .....

TELEVISION ANTENNAS. 2ND EDITION. Describes all TV antenna types. Tells how to select and install antennas, find troubles, use short-cuts. Full coverage of antenna principles and construction, discussion of built-in types, phased arrays; etc. 224 pages; 5½" x 8½". illus. **$2.00**
No. TAG-1 .....

SERVICING TV IN THE CUSTOMER'S HOME. Shows how to diagnose trouble using capacitor probe and VTVM. Describes "tube-pulling" method of trouble diagnosis, performance tests by means of picture test pattern, adjustment techniques for field servicing. 96 pages. 5½" x 8½". illustrated. **$1.50**
No. TC-1 .....

MAKING MONEY IN TV SERVICING. Shows how to start and operate a profitable servicing business. Covers: overall planning; initial investment; selection of location; expansion; current finances; budget and control; work control; overhead; service charges; purchasing; service contracts; customer relations; collections; advertising, etc. 136 pages, 5½" x 8½". illustrated **$1.25**
No. MM-1 .....

TELECASTING OPERATIONS. The only complete coverage of every phase of Telecasting, from theory through equipment, operation, maintenance, production—indispensable to anyone interested in Telecasting. 600 pages, 6" x 9". Ill. **$7.95**
No. OH-1 .....

UHF ANTENNAS, CONVERTERS AND TUNERS. Covers all antenna types, transmission lines and matching networks, UHF converters and tuners. 136 pages, 5½" x 8½". Illustrated. **$1.50**
No. UHF-1 .....

TV TUBE LOCATION GUIDES

Position and function of every tube in hundreds of popular TV sets. Clear, accurate diagrams. 5½" x 8½".

Vol. 4. 1952-53 receivers. 192 pages.
No. TGL-4 ..... **$2.00**
Vol. 3. 1951-52 receivers. 192 pages.
No. TGL-3 ..... **$2.00**
Vol. 2. 1950-51 receivers. 208 pages.
No. TGL-2 ..... **$2.00**
Vol. 1. 1948-1950 receivers. 208 pages.
No. TGL-1 ..... **$1.50**

19-54A

AUDIO PUBLICATIONS

THE RECORDING AND REPRODUCTION OF SOUND. Enlarged 2nd Edition. Biggest selling volume on the entire subject of Audio. Covers all aspects of recording, with full analysis of recorders and techniques. Complete data on amplifiers, speakers, microphones, phonograph equipment, P. A., etc. 810 pages 6" x 9". Profusely illustrated. **$7.95**
No. RR-2 .....

AUDIO AMPLIFIER MANUALS

Bound volumes of Photofact Folders covering all types of audio equipment. Each volume gives schematic diagrams, parts lists, illustrations and helpful servicing information on amplifiers, preamplifiers and tuners. 8½" x 11".

Volume 5. 37 amplifiers, 12 preamplifiers and 14 custom tuners made during 1952 and 1953. 352 pages.
No. AA-5 ..... **$3.95**

Volume 4. Covers 75 amplifiers and tuners made during 1951 and 1952. 352 pages.
No. AA-4 ..... **$3.95**

Volume 3. Covers 50 amplifiers and 22 tuners made during 1950. 352 pages.
No. AA-3 ..... **$3.95**

Volume 2. Covers 104 amplifiers and 12 tuners made during 1949. 368 pages.
No. AA-2 ..... **$3.95**

RECORD CHANGER MANUALS

It's easy to service record changers with this series of manuals. Each volume contains diagrams, photos, exclusive "exploded" views, parts lists, also valuable hints and adjustment data on record changers, wire, tape and disc recorders. All data based on analysis of the actual equipment. Pages size 8½" x 11".

Volume 5. Covers 32 basic units produced during 1952 and 1953. 288 pages.
No. CM-5 ..... **$3.00**

Volume 4. Data on 38 changers and recorders made during 1950 and 1951. 288 pages.
No. CM-4 ..... **$3.00**

Volume 3. 44 changers made in 1949 and 1950. 288 pages.
No. CM-3 ..... **$3.00**

Volume 2. Covers 45 models made in 1948 and 1949. 432 pages.
No. CM-2 ..... **$4.95**

AUTO RADIO SERVICE MANUALS

Bound volumes of Photofact Folders covering hundreds of popular Auto Radio Receivers. Each volume gives complete service data, schematic diagrams, parts lists and chassis photos, all in uniform format, based on actual laboratory analysis. Page size, 8½" x 11".

Volume 4. Covers 41 chassis (40 models) produced during 1953.
No. AR-4 ..... **$3.00**

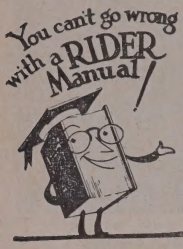
Volume 3. Covers 47 chassis (80 models) produced in 1950, 1951 and 1952. 288 pps.
No. AR-3 ..... **$3.00**

Volume 2. Covers 60 chassis (90 models) produced in 1948, 1949 and 1950. 288 pps.
No. AR-2 ..... **$3.00**

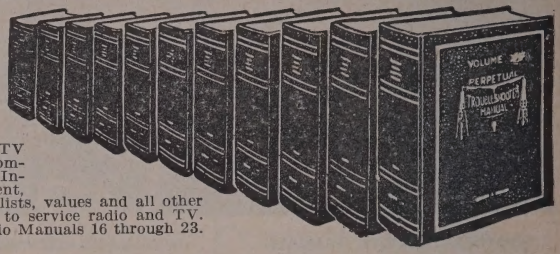
Volume 1. Covers 100 models made from 1946 to 1949 by 24 manufacturers. 396 pps.
No. AR-1 ..... **$4.95**

BASIC RADIO MANUAL. Comprehensive training guide, outlining step-by-step a 36-Lesson Course on Basic Radio accompanied by a practical Shop Project section devoted to actual job projects that implement the lessons and clearly translate theory into practice. 248 pages, 8½" x 11". Illustrated. **$5.00**
No. ED-1 .....

Rider Service Manuals and Texts



RIDER MANUALS
THE WORLD'S GREATEST REFERENCE LIBRARY ON RADIO AND TV RECEIVERS



Found in most successful radio and TV service shops, these manuals offer complete factory authorized service data. Includes schematics, tube layout, alignment, IF peaks, voltages, resistances, parts lists, values and all other information the serviceman will need to service radio and TV. Volume 23 includes one index for Radio Manuals 16 through 23. In waterproof looseleaf binders.

AM-FM RADIO MANUALS

Vol.	Pages	Date	Net
23	1152	Sept. '51-present	$15.00
22	1520	Nov. '51-Aug. '51	18.00
21	1648	Dec. '49-Oct. '50	21.00
20	1776	Mar.-Nov. '49	21.00
19	2122	1948-1949	22.50
18	2036	1947-1948	22.50
17	1648	1947	19.80
16	768	1946-1947	9.90
15	2000	1945-1946	22.50
14	1376	1942	19.80
13	1672	1941-1942	19.80
12	1648	1940-1941	19.80
11	1652	1939-1940	19.80
10	1664	1930	19.80
9	1672	1938	19.80
8	1650	1937	19.80
7	1600	1936	19.80
6	1240	1935	15.00

TV MANUALS
(equivalent 8½" x 11" pages)

Vol.	Pages	Date	Net
13	2300	Aug. '53-May '54	$24.00
12	2000	Mar. '53-July '53	24.00
11	2200	Oct. '52-Feb. '53	24.00
10	2350	Mar. '52-Sept. '52	24.00
9	2136	Oct. '51-Feb. '52	24.00
8	2688	June '51-Sept. '51	24.00
7	2352	Sept. '50-June '51	24.00
6	2320	Aug. '50- Jan. '51	24.00
5	2320	Mar. '50-July '50	24.00
4	2296	Oct. '49-Feb. '50	24.00
3	2032	Jan. '49-Oct. '49	24.00
2	1896	Jan. '48-Jan. '49	24.00
1	2000	Up to Jan. 1948	19.80

RIDER TEK-FILE

Buy only the TV data you need . . . when you need it! Direct from the manufacturers comes the TV servicing data you receive in Rider's new data service. TEK-FILE contains the same official factory-authorized information that appears in the time-saving, profit-making TV Rider Manuals. But here's the difference! It's available in a compact file folder that makes it convenient to use when making outside service calls. . . . TEK-FILE is the ONLY service data source featuring completeness. The price is right! TEK-FILE is economically priced at only **$1.50** per pack. Send for FREE complete index.

SPECIALIZED HOME AND PORTABLE RADIO MANUALS

2½ years production in each of the 11 volumes . . . June 1951 through December 1953. Dollar for dollar it has no equal. Comparable data from other sources costs up to 20 times as much. Complete factory-authorized service information on the sets of 45 brands. Contains: Schematics, Tube Layout, Voltages, Alignment, Cabinet Picture, Dial Stringing, Trimmer Location, Parts List, Chassis Views, individually indexed. Vol. 7 has 192 pages, all others 96 pages. 8½" x 11". Soft cover. **Vol. 1.** Admiral, Allied, Arvin, Automatic, Bendix. **Vol. 2.** Bogen, CBS, Capehart, Crosley. **Vol. 3.** Dewald, Emerson, Fada, Firestone. **Vol. 4.** Gamble, GE, Goodrich, Hallcrafters, Jackson. **Vol. 5.** Jewel, Magnavox, Meck, Mitchell, Montgomery Ward. **Vol. 6.** Motorola, Olympic, Packard-Bell. **Vol. 7.** Philco. **Vol. 8.** RCA. **Vol. 9.** Craftsman, Raytheon, Sears, Sentinal, Setchell-Carlson, Sonora, Sparton. **Vol. 10.** Spiegel, Stewart-Warner, Stromberg, Sylvania, Tele-King, Trav-ler. **Vol. 11.** Wells Gardner, Western Auto, Westinghouse, Zenith.

Vol. 7. Net Price.....Only **$2.40**
All other Vols. Net Price...Only **1.65**

TV MANUFACTURERS' RECEIVER TROUBLE CURES

Positive cures for TV Troubles! Official, factory authorized cures, direct from receiver's manufacturer. Five volumes list 61 manufacturers' authorized directions for correcting receiver faults. Each volume over 115 pages. 5¼" x 8½". Illustrated.
Vol. 1—11 brands, Admiral—Dumont
Vol. 2—11 brands, Emerson—Jackson
Vol. 3—16 brands, Kaye-Halbert—Philco
Vol. 4—10 brands, Philharmonic—Shaw
Vol. 5—12 brands, Sparton—Zenith
Net Price, Each Volume....Only **$1.80**

TV TROUBLESHOOTING AND REPAIR GUIDE BOOK VOL. 1
By Robert G. Middleton

How to spot TV receiver troubles and correct them. Hundreds of hints and short cuts for trouble-shooting TV circuits. 204 pages 8½" x 11". Net Price..Only **$3.90**
Vol. 2. More service data on video IF and amplifiers, sound IF and detector, audio amplifiers, etc. 160 pages.
Net Price.....Only **$3.30**

HOW TO TROUBLESHOOT A TV RECEIVER
By J. Richard Johnson

Written for the newcomer—explains the mental and physical approach to TV servicing. Step-by-step guide tells where to start and how to continue, also discovery and interpretation of symptoms. Test patterns, tubes, tools, etc. 128 pages, paper bound. Net Price.....Only **$1.80**

RADIO TROUBLESHOOTING GUIDEBOOK, VOL. 1
By John F. Rider and J. R. Johnson

Discusses all types of AM and FM radios, with full trouble-shooting details. Completely practical—for technician—for student! Over 140 pages 5½" x 8½" with illustrations. Soft cover.
Vol. 1. Net Price.....Only **$2.40**

TV AND ELECTRONICS AS A CAREER
By Kamen and Dorf

Authorities tell career possibilities offered by the basic branches of the industry. 326 pages, 5½" x 8½". 130 illus., cloth bound.
Net Price.....Only **$2.50**

HOW TO INSTALL AND SERVICE AUTO RADIOS
By Jack Darr

An expert gives practical detailed instructions on how to install and service all types of automobile radios. Not a schematic book. Shows where to run lead-ins, how to install antennas, eliminate noise, and gives methods for vibrator testing. 128 (5½" x 8½") pages. Soft cover. Illustrated.
Net Each.....Only **$1.80**

RECEIVING TUBE SUBSTITUTION GUIDEBOOK
By H. A. Middleton

2500 radio, TV and electronic substitutions in numerical order for quick reference. Ratings and necessary changes. Base diagrams, char. chart, 224 pages, 8½" x 11". Soft cover. Net Price...Only **$3.00**
First Supplement—Includes 750 substitutions not listed in first edition. Plus section on substitution of tubes in TV receivers. 48 pages. Net Price.....Only **99c**
2nd Supplement—134 picture tubes, 190 AM-FM-TV receiver tube substitutions not previously listed. 48 pages.
Net Price.....Only **99c**

INSIDE THE VACUUM TUBE
By John F. Rider

Theory and operation of basic types of vacuum tubes based on electro-static field theory, simply explained with "painless" mathematics. 424 pages. Cloth bound.
Net Price.....Only **$4.50**

FM TRANSMISSION AND RECEPTION
By John F. Rider

2nd Edition 1950. Discusses FM receiver antennas, r-f converter, i-f stages, etc. Covers transmitting and receiving antennas, plus various receivers, including television, their functioning and servicing. All alignment methods and servicing problems. 460 pages. Cloth bound.
Net Price.....Only **$4.95**

UHF PRACTICES AND PRINCIPLES
By Allan Lytel

Complete discussion of theory and applications of ultra high frequencies. Economic and technical effect of UHF on service and broadcast personnel. TV devices, UHF test equipment, circuit components, tubes. 390 pages. Cloth bound. 5½" x 8½". Illus.
Net Price.....Only **$6.60**

UHF TELEVISION ANTENNAS AND CONVERTERS
By Allan Lytel

Latest on UHF TV antennas, lines, converters and tuners. Valuable for UHF installation and maintenance. 120 pages; 5½" x 8½"; soft cover.
Net Price.....Only **$1.80**

TV PICTURE PROJECTION AND ENLARGEMENTS
By Allan Lytel

Explains "how" and "why" adjustments of these receivers can be simple and rapid. Dollar-making, time-saving practices! 192 pages. Illustrated. Cloth cover.
Net Price.....Only **$3.30**

SPECIALIZED AUTO RADIO MANUALS

Complete factory data giving ALL service information including installation and removal instructions on factory installed radios. Covers 5 years of production . . . 1950 through 1954. Contains: Noise suppression, push button setups, schematics, tube layout, alignment, dial stringing, parts list, chassis views, voltages, trimmer location, etc.

Vol. 1-A. Ford, Lincoln, Mercury. 208 (8½" x 11") pages.....Only **$3.00**

Vol. 2-A. Buick, Cadillac, Oldsmobile. 200 (8½" x 11") pages.....Only **$3.00**

Vol. 3-A. Chevrolet, Pontiac, GMC Trucks and Chevrolet Trucks. 128 (8½" x 11") pages.....Only **$1.80**

Vol. 4-A. Chrysler, Plymouth, De Soto, Dodge, Dodge Trucks. 176 (8½" x 11") pages.....Only **$3.00**

Vol. 5-A. Independent Car Manufacturers Henry-J, Hudson, Kaiser-Frazier, Nash, Packard, Studebaker, Willys. Approx. 175 (8½" x 11") pages.....Only **$3.00**

TV AND OTHER RECEIVING ANTENNAS (THEORY AND PRACTICE)
By Arnold B. Bailey, Antenna Consultant

50 types of VHF and UHF antennas are discussed. Guaranteed to answer all your questions! Cloth bound, well illustrated. 606 pages. Net Price.....Only **$6.90**

Alliance Door Opener; Mfr's. Index

THE NEW "GENIE" II LIFT-A-DOR

All the safety and convenience of a fool-proof, trouble-free automatic garage door opener at a price everyone can afford. Many different models to choose from, including a radio controlled model, hydraulic hose operated and key lock switch models. Opens door, closes door, turns light on and off and securely locks sectional doors. The "Genie" takes the "irk" and the "work" out of your garage door. The key lock switch type operates when you turn key in lock switch installed alongside driveway or on wall of garage or house. Garage door automatically opens or closes, that's all there is to it! The hydraulic hose type operates when you drive over a length of hydraulic hose laid across the driveway. The radio controlled model operates from a signal sent out by a miniature radio transmitter installed under the hood of your car. You simply touch a button on the dash and . . . presto! Operates in all kinds of weather. Easily installed in a minimum of time. Works on heavy and light overhead residential doors (straight track or curved track) up to 16′ x 8′. Automatic safety clutch . . . door movement automatically reversed if door strikes object. Special Alliance "wobbulator" conserves motor . . . adds "extra" safety factor. Can be operated manually in event of power failure or shut-off. Built-in thermal circuit breaker protects motor against overload. Wick lubrication motor . . . needs oiling only once a year. Extra operating pushbutton control, mounted on garage wall. Other control buttons can be installed in house for extra convenience. Operates on standard home wiring. Economical to operate . . . costs only a few pennies a month. Fully assembled and quality tested at factory. Guaranteed against defects in materials and/or workmanship. Comes complete with all brackets, hangers and controls for ready installation and operation.

Lift-A-Dor "Genie" KST-II—For use with solid or one-piece overhead door. Complete with manual push button and key switch. Net Each..... $51.72

Lift-A-Dor "Genie" KCT-II—For use with sectional type overhead door. Complete with manual push button and key switch. Net Each..... $58.72

Lift-A-Dor "Genie" HST-II—For use with solid or one-piece overhead door. Complete with manual pushbutton and a hydraulic control. Net Each..... $55.92

Lift-A-Dor "Genie" HCT-II—For use with sectional type overhead door. Complete with a manual push button and a hydraulic control. Net Each..... $62.92

Lift-A-Dor "Genie" RCST-II—For use with solid or one-piece overhead door. Complete with manual push button and radio controls for 6 or 12 volt systems. Net Each $115.46

Lift-A-Dor "Genie" RCCT-II—For use with sectional type overhead door. Complete with manual push button and radio controls for 6 or 12 volt systems. Net Each.... $122.46

CONTROLS ONLY

Model K-1 Key Switch—For "Genie" 'ST and 'CT Models. Net Each..... $2.76

Model H-1 Hydraulic Switch—For 'ST and 'CT Models. Net Each..... $6.96

Model TR-1 Transmitter—For 6 or 12 volt systems. For use where two vehicles control the same door. When ordered separately specify channel and number. Net Each..... $22.40

Model RC-1 Radio Controls—For 6 or 12 volt systems. Consists of transmitter and receiver units. Net Each..... $66.50

OPERATORS ONLY (DC MODELS)

Lift-A-Dor "Genie" ST-1—For use with solid or one piece overhead door. Complete with manual push button. Net Ea. $48.96

Lift-A-Dor "Genie" CT-1—For use with sectional type overhead door. Complete with manual push button. Net Each... $55.96

AC TYPE LIFT-A-DORS

Lift-A-Dor "Genie" AC—For use with curved track, sectional type overhead door. Complete with Model A Radio Controls (receiver, transmitter, antenna, and wall mounting push button). Net Each..... $153.96

Lift-A-Dor "Genie" AH—For use with horizontal track one piece overhead door. Complete with Model A Radio Controls. Net Each..... $153.96

OPERATOR ONLY (FOR AC MODELS)

Lift-A-Dor Model AC-1 Operator—For use with curved track sectional type door. Includes wall mounting push button. (Does not include radio controls). Net Each..... $87.46

Lift-A-Dor Model AH-1 Operator—For horizontal track one piece type door. Includes wall mounting push button. (Does not include radio controls). Net Each..... $87.46

RADIO CONTROLS ONLY (FOR AC MODELS)

Lift-A-Dor Model A Radio Controls—For use with either Model AC-1 or AH-1 operators. Consists of transmitter and receiver units. Net Each..... $66.50

TRANSMITTER ONLY (FOR AC MODELS)

Lift-A-Dor Model A Radio Transmitter—For use where two vehicles control same door. When ordered separately, specify channel letter and number. Net Each..... $22.40

ADAPTER (FOR AC MODELS)

Lift-A-Dor Model A Voltage Adapter—For use with Model A Radio Transmitter on 12 volt ignition systems in some models of automobiles. Net Each..... $3.00

INDEX TO MANUFACTURERS

Page

A Acro....113
Aerovox....58, 168
Akro-Mils....196
Alprodco....201
Alliance....203, 215
Amer. Elec. Hardware....192
Amperite....173
Amphenol....32, 43, 72, 82-84, 97, 172, 197
Astatic....127
Atlas....147, 148
ATR....103
Audio Development....25
Audio Devices....130, 131

B Barker & Williamson....25, 73, 74
Belden....12, 32, 170, 171
Bell....120
Blonder-Tongue....212
Blum, Julius....169
Bogen....110-112, 153-155
Brach....200
British Industries....113, 118, 130
Brush....148, 173
Bud....43, 78, 186, 187
Burgess....101
Buss....99

C Cannon Electric....87-89
Carter....102
Centralab....37, 56, 57, 94, 95
Cetron....10
Channel Master....198-200
Chicago Std. Transformer (Stancor Div.)....10, 59-61, 113, 210, 211
Cinch-Jones....85, 86
Collaro....127
Conant....34
Conrac....164
Continental Carbon....45, 167
Cornell-Dubilier....103

D Daven....25, 122
Drake Mfg. Co....92
Drake, R. L....168

E Eby....81
Elco....28, 29
Electrons, Inc....10
Electro Prod. Lab....103
Electro-Voice....108, 129, 133, 139-141, 150, 151
Equipto....190
Ersin....193
Eveready....100

F Federal Telephone & Radio....11
Federal Switch....97
Finco....202
Fisher....115

G Garrard....118
Gee Lar....79
Gemco....207
General Cement....79, 80, 188, 189, 191, 196
General Electric....2-4, 8, 9, 12, 13, 103, 113, 117, 114
Gonset....175
Gramer-Halldorson....64-66
Greenlee....196
Guardian....173

H Hallicrafters....176-178
Hart & Hegeman....97
Hickok....16, 17
Hy-Lite....182

I ICA....80, 167
Instructograph....182
IRC....38, 39, 44, 45

J Jackson....26, 27
Jensen Ind....132, 148
Jensen Mfg. Co....134-138
Jerrold....204
JFD....205
Johnson, E. F....90, 91, 169, 179, 182
Jones, Howard B....86

K Kester....193
Klipzon....32
Knight....173
Kraeuter....194
Krylon....191
Kwikheat....193

L Littelfuse....98
Luxo....196
Lynn....193
Lysco....182

M Magnecord....123-125
Mallory....12, 36, 43, 45, 52-55, 80, 81, 93, 97, 99, 104, 165, 167, 168, 207
Masco....114, 127, 160-163
Mathis....201
McIntosh....105
Meissner....168
Merit....62, 63, 76, 77, 208, 209
Minnesota Mining....128, 193
Mosley....206
Mueller....81

N National Co....72, 74, 80, 180, 181
National Electronics....10
Newcomb....108-110, 156-159

O Ohmite....40-43

P Permo....131
Permoflux....121
Pickering....120
Potter & Brumfield....174
Precision....22-24
Presto....126

Q Quam....145

R Radiart....203
Radion....201
Rason....148
Raytheon....6, 9
RCA....2, 3, 5, 8, 9, 14, 15, 130, 164
Regency....106, 107, 207
Rek-O-Kut....119
Rider....214
R-J....133

S Sams, Howard W....213
Sangamo....46
Shure....146, 149
Simpson Electric....18-20, 34
Smith, H. H....33
Sola....70
Speedway....194
Sprague....47-51
Stancor....9, 59-61, 113, 210, 211
Standard Coil....202
Stromberg-Carlson....152
Superior Electric....71, 72
Switchcraft....96
Sylvania....2, 3, 7-9, 11, 21, 24

T Telex....185
Tenna Mfg. Co. (formerly Radelco)....167, 197
Trimm....184
Triplett....30, 31, 35
Tung-Sol....2, 3, 8

U Ungar....193
Unimax....97
University....142, 143
UTC....67-69, 113

V Vaco....193
Vector....75
V-M....116
Vocaline Co....122

W Walsco....32
Ward....166
Webster Electric....129
Weller....192
Wen....194
Westinghouse....10
Weston....25
Wheeler....185
Wilcox-Gay....121
Workman....207
Worner....183

X Xcelite....195

206Z-550

Complete Catalog Index

Page

A Acrylic Spray....191
Air Inductors....73, 74
Alignment Tools....32
AM-FM Tuners.106, 108, 110, 115, 175
Amateur Equipment....73, 74, 173-183
Ammeters....19
Amplifiers....105-117, 123-125
Anode Caps....72, 85, 189
ANTENNAS & EQUIP'T
Antennas.166, 167, 179, 182, 197-202
Boosters....207, 212
Coils....73, 76, 77
Connectors.197, 199, 200, 204
Mobile....166, 167
Mounts..167, 179, 201, 205, 206
Rotators....199, 203
Switches....206
Towers....201
TV....197-202
Attenuators....39, 212
Auto Antennas....166, 167
Auto Suppressors....167

B Banana Plugs & Jacks...72
Barriers....85
Batteries....99-101
BATTERY
Chargers....29, 165
Clips....29, 81
Eliminators....29, 103, 165
Plugs....85
Tester....13, 19, 23
Bench Lamp....196
Bench Power Supply....165
Bias Cells....12
Binaural Equipment...121, 125
Binding Posts....72, 81
Books, Manuals....11, 51
Boosters, TV....207, 212
BRACKETS
Chassis Mounting....187
Pilot Light....91, 92

C CABINETS
Hi-Fi....107
Metal....186, 187, 190
Parts...37-39, 41, 44, 94, 98
Speaker..113, 133, 138, 140, 143
Transcr. Turntable....119
CABLE—See Wire.
CAPACITORS
Buffer....104
Ceramic....50, 51, 56
Decades....29
Electrolytic....46, 52-54
High Voltage...46-51, 55, 56
Mica....49, 58
Motor Starting....55
Oil Filled....55
Paper....46-48, 54, 58
Plastic....54, 104
Transmitting....48
Variable....74, 78
Vibrator....48
Cartridges, Phono....117, 120, 127, 129, 130, 141, 146
Cements....191
Changers, Record.116, 118, 127
Chassis Bases....186
Chemicals....191
CHOKES
Audio....61, 67
Filter....61-64, 67
Iron Core....74
RF....43, 74, 76, 77
Shielded....73
Smoothing....61, 63, 64
Swinging....61, 63, 64
Television....208-211
Transmitting....43
CLIPS
Alligator....81
Battery....29, 81
Test....81
COAXIAL
Cable....171, 172
Connectors....83, 84, 87-89
Speakers..117, 137, 139, 142, 145
Code Trainer....182
COILS
AM, FM....76, 77
Antenna....73, 76, 77
Balun....73
Discriminator....76
Forms....43, 74
IF, RF....76, 77
Oscillator....76, 77
Transmitting....73, 74
Connectors, Cable...81, 83, 84, 87-89
CONTROLS
Concentric....36, 38
Loudness....37, 39
Tone....37, 94

Page

Volume....37, 38
Converter, Power....102, 103
Converter, TV....207, 212
CRYSTAL
Cartridges, Phono..127, 129, 130, 131
Frequency Control....173
Microphones....148-151
Mike Cartridges....146

D Diagram Manuals.213, 214
DIALS
Cords, Access....80, 188, 189
Drive Springs....188
Knobs....79, 80
Lights....91, 92
Plates....79, 80
Diodes, Crystal....9, 11, 12
Diodes, Germanium...9, 11, 12
Diodes, Silicon....9, 11
Disc Recorder....119, 126
Drawer Slides....187
Drills, Electric....194

F Fanning Strips....85
Feed-Thru Insulators...72
Field Meter....18, 19, 201
FILTERS
Audio....113, 115, 168
Interference....77, 168
FLASHLIGHT
Batteries....100, 101
Bulbs....12
Cases....101
Flyback Transformers..65, 210
FREQ. MODULATION
Coils....76, 77
Tuners....107, 111, 115
Fuses....98, 99
Fuse Holders....98, 99

G Gauge, Stylus....118
Grommets....188

H Ham Gear....73, 74
Hardware....188, 189
Headphones....121
Hi-Fi Amplifiers....105-117
Hi-Fi Equipment....105-143
High Pass Filter....76, 143

I IF Transformers....76
Insulators....72
Inter-Com. Systems...112, 122
INVERTERS
Power....102, 103
TV....103

J JACKS
Banana....33
Microphone....81
Panel....25
Phone Tip....33
Phono....81
Jewel Lights....91, 92

K Knobs....79, 80

L LAMPS
Flashlight....12
Neon-Glow....12
Pilot....12
Latching Relays....173, 174
Lightning Arresters....197
Loudness Control....37, 39

M Meters, Panel....25
MICROPHONES
Cable....171, 172
Cable Transformer....146
Cartridges....146
Connectors....81, 83, 84
Stands....146-151, 176
Switches....146
Mixers....96, 114, 115, 125
MOTORS
Antenna Rotating....203
Tape Capstan....126
Mounting Brackets....187

N NEEDLES
Cutting....131
Replacement..117, 120, 129, 131, 132, 141
Neon-Glow Lamps....12
Nut Drivers....195

O Oscilloscopes....13-26, 29
Output Atten'tors.39, 212

P P. A. Systems....116
Padders....78
Panel Light Assembly...91, 92
Panel Meters....25
Patch Cord....25
PHONE
Jacks & Plugs....25, 81, 189
Tips....33, 189
PHONOGRAPH EQUIP'T
Amplifiers....105-117
Cartridges....117, 120, 127, 129, 130, 141
Changers....116, 118, 127
Needles....117, 120, 129-132
Pickups....117
Portable....116
Tone Equalizers....105, 110, 115, 117, 120
Photo Tubes....4, 5, 7
Picture Tubes....8

Page

Pilot Bulbs....12
Pilot Lights....91, 92
Plastic Spray....191
Pliers....194
PLUGS
Banana....33
Battery....85
Cable....81, 83, 85
Phone....25, 81, 189
Phono....86, 189
Potentiometers....36-40, 45
Power Supplies..13, 29, 66, 70, 71, 123, 175, 179
Preamplifiers....105, 106, 108, 113-115, 117, 120
Printed Circuits....57
Probes..15, 17, 21-23, 28, 29, 32
Projectors, Speaker....133
Punch, Chassis....196

R Racks....186, 187
Receivers, Short Wave....175-178, 180, 181
RECORD
Changers....116, 118, 127
Compensators.105, 110, 115, 117, 120
Equalizers.105, 110, 115, 117, 120
Players...111, 112, 116, 118, 119, 126, 127
RECORDERS
Disc....119, 126
Tape..114, 120, 121, 123-125
RECORDING EQUIPMENT
Discs....131
Phone Pickup....121
Tape....128, 130
Wire....131
RECTIFIERS
Instrument....34
Magnesium....165
Selenium....11
Vacuum....6, 10, 103
Refinishing Supplies....191
Relays....173, 174
RESISTORS
Adjustable....42, 43
Carbon....44, 45
Fixed....41-43
Precision....45
Wire Wound....41-44
Rheostats....40, 45

S Screwdrivers....195
Selenium Rectifiers....11
Short Wave Receivers.175-178
Signal Generators..13-15, 17, 18, 20-22, 24-26, 28
Shelving, Steel....190
SOCKETS
Pilot Light....91, 92
Tube....82, 85, 89
Turrets....74, 75
Solder....193
SOLDERING
Guns....192-194
Irons....192, 193
Lugs....188
Paste....193
Sound Systems—See P.A. Sys.
SPEAKERS
Amateur....177, 181
Baffles....112, 138
Cabinets..113, 133, 138, 140, 143
Coax..117, 137, 139, 142, 145
Crossovers....122, 139
Driver Units....139, 142
High Fidelity...117, 137-145
Networks....122, 139
Projectors....133, 147
Replacement...138, 144, 145
Systems....134-136, 140-143
Tweeters....142, 143, 145
Stand-Off Insul....169, 197
Sweep Generators.13, 21, 22, 28
SWITCHES
Intercom....94, 96
Jack....97
Lever....93, 94, 96
Push Button....93, 96, 97
Rotary....93-97
Selector....93
Tap....97
Toggle....97
Tone....94

T TAPE
Duplicator....123, 126
Electrical....193
Pre-Recorded....128
Recorders....114, 120, 121, 123-125
Recording....128, 130
TELEVISION
Antennas....197-199, 202
Antenna Access....197-212
Boosters....207, 212
Camera....164
Chassis....164

Page

Converters....207, 212
Components....76, 207-212
Couplers....198, 200, 204
Towers....197
Filters....77
Remote Control....207, 212
Set Couplers....199
Transformers.65, 76, 208-211
Tubes....2, 3, 8
Tuners....202
Terminals, Solderless....193
Terminal Strips....85, 188
TEST INSTRUMENTS
Audio Gen....15, 17, 27
Color TV..14, 17, 18, 24, 26
CR Tube Tester 16, 22, 27, 29
Diode Checker....13
Dot Bar Generator...14, 17, 18, 24
Field Strength Meter..18, 19
Marker Gen....21, 31
Oscilloscopes....13-26, 29
Signal Gen....13-31
Sweep Gen....13, 21, 22, 28
Therm-O-Meter....18
TV Test Eqpt....13-31
Tube Tester...16, 20, 22, 23, 27, 29, 30, 31
V.T.V.M...16, 21, 22, 26, 28
Test Leads....32
Test Prods...15, 17, 21-23, 28, 29, 32
Tone Controls....37, 94
Tools....194-196
Transcr. Arms....117, 120
TRANSFORMERS
Audio....59, 65-69, 211
Autoformer..15, 63, 69, 137, 209
Constant Voltage....70
Driver....61, 63, 67
Filament.59, 61, 64, 208-211
Flyback....65, 210
Hearing Aid....69
H.F. Audio.60, 62, 65-68, 113
IF, RF, Ant....76, 77
Input....60, 62, 67, 69
Interstage..60, 62, 64, 66-69
Isolation...61, 63, 208, 211
Line....59, 62, 63, 67, 68
Matching.65-67, 69, 133, 212
Mixing....67, 69
Modulation....61, 63, 67
Oscillator....65, 76, 77
Output....59, 62, 65-67, 69, 208, 209, 211
Photo Flash....63
Plate...59, 60, 63, 64, 67, 69
Power.62-65, 68, 69, 209, 210
TV....65, 76, 208-211
Variable....66, 68, 70-72
Vibrator....59, 63, 64, 208
Transistors....9
Transformers....9, 66
Transmitters.175, 176, 179, 182
TUBES
Cathode-Ray....5, 8
Industrial....4-7, 10
Photo Tubes....4, 5, 7
Picture....8
Receiving....2, 3
Shields....82
Testers 16, 20, 22, 23, 27, 29-31
Transmitting....4-7
Tube Clips....189
Tuners, AM-FM.106, 108, 110, 115
Tuners, TV....202
Tuning Eye....82
Turret Assemblies....74, 75
Twin Lead....170, 197
Twin Lead Connector....197

V Vibrators....48, 104
Vibrator Tester....104
Voltage Regulators....66, 68, 70-72, 207
Volume Controls....37, 38
V.T.V.M.'s...16, 21, 22, 27, 28
V. U. Meters....25

W WIRE
Antenna....170
Coaxial....171-172
Hook-Up....171, 172
Intercom....171, 172
Lead-In....171, 172
Microphone....172, 173
Recording....131
Replacement Cord....12
Shielded....171-173
Test Lead....32
Trans. Line....172
TV Eye....173

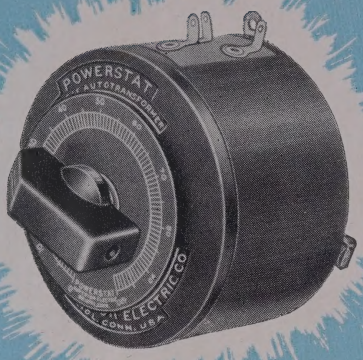
X XL Connectors....89

Y Yagi Antennas....197-199
Yokes, Defl....65, 210

Printed in U.S.A. from Monotype Composition by Electronic Publishing Co., Chicago
Vinylite Molded Electrotypes by Pontiac Engraving and Electrotype Co., Chicago

THE SUPERIOR ELECTRIC CO.
BRISTOL, CONNECTICUT

POWERSTAT Variable Transformers

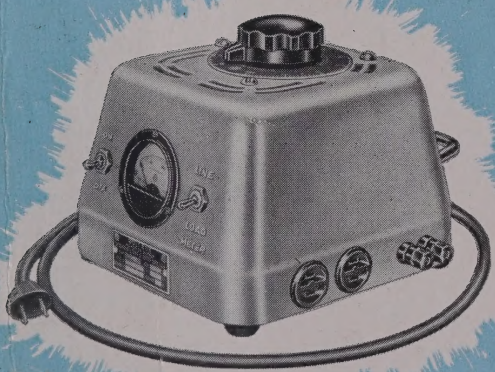


TYPE 10 POWERSTAT

Small in size—Big in Performance. A compact variable A-C voltage control for low wattage applications.

TYPE 116 POWERSTAT

One of many types of manual and motor-driven air-cooled models available for 115, 230 and 460 volts, 25 50/60 and 400/800 cycle, single and three phase service in ratings from 150 VA to 100 KVA.

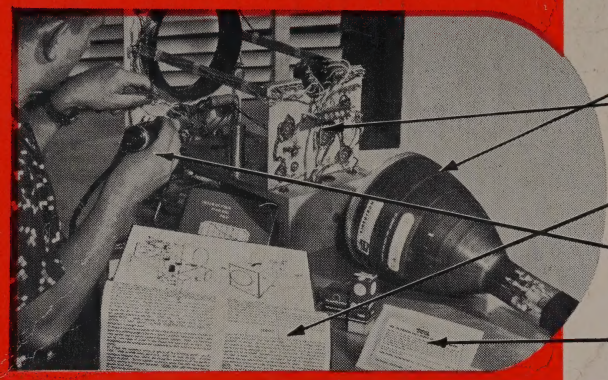


VOLTBOX A-C POWER SUPPLIES

A very handy instrument for laboratory, inspection department and the plant. It eliminates the task of collecting a variable transformer, voltmeter and connection leads when a test is required involving A-C voltage.

WARREN RADIO COMPANY

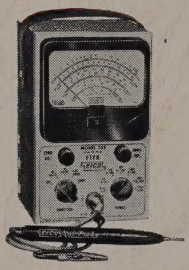
THE INSIDE STORY PROVES . . .



1. Finest Quality Components.
2. Advanced Engineering.
3. 2 Super-Simplified Instruction Manuals.
4. Modern-Styled Professional Appearance.
5. True Economy: You save 50% — as you learn the instrument *completely*.
6. Lifetime Service and Calibration Guarantee.

EICO® KITS AMERICA'S GREATEST VALUES!

NEW! 232K PEAK-TO-PEAK VTVM KIT $29.95 WIRED $49.95



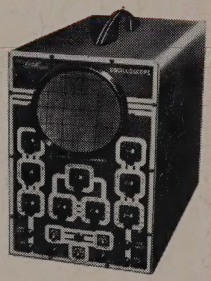
WITH AC/DC UNI-PROBE

- Measures directly p-p voltage of complex and sine waves: 0-4, 14, 42, 140, 420, 1400, 4200.
- DC/RMS sine volts: 0-1.5, 5, 15, 50, 150, 500, 1500 (up to 30,000 v. with HVP probe, and 250 mc with PRF probe).
- Res.: 0.2 ohms to 1000 megs in 7 ranges.
- DC Input R: 11 megs. 1% precision ceramic multipliers. 4½" meter. UNI-PROBE: Only 1 probe performs all functions—a half-turn of probe-tip selects DC or AC-OHMS! (Pat. Pend.)

425K 5" PUSH-PULL OSCILLOSCOPE KIT $44.95 WIRED $79.95

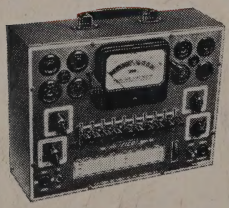
Feature-packed, performance-proven, economy-priced—an EICO exclusive! Tens of thousands in use!

- Push-pull Vert. & Hor. amplifiers.
- High V & H sens.: 0.05-0.1 rms v/in.
- V & H response: 5 cps-500 kc.
- Useful to 2.5 mc.
- Sweep: 15 cps-75 kc.
- Direct connections to CRT plates.



470K 7" PUSH-PULL OSCILLOSCOPE
KIT $79.95 WIRED $129.50

625K TUBE TESTER KIT $34.95 WIRED $49.95



- Tests All conventional & TV tubes.
- 10 individual lever-type element switches.
- 4½" meter; 3-color scale; illuminated anti-backlash rollchart.
- Protective overload bulb; line-adjust control; 2 grid caps.
- Blank socket for future tubes; pilot light test socket.
- Also tests TV picture tubes while in set with EICO CRA Adapter, $4.50.

AUTHORIZED EICO DISTRIBUTOR

221K VACUUM TUBE VOLTMETER
KIT $25.95. Wired $39.95.

944K FLYBACK TRANSFORMER & YOKE TESTER
KIT $23.95. Wired $34.95

1050K 6V & 12V BATTERY ELIMINATOR & CHARGER
KIT $29.95. Wired $38.95.

526K MULTIMETER (plus 1% precision resistors)
KIT $13.90. Wired $16.90.

565K 20,000 Ohms/Volt MULTIMETER
KIT $24.95. Wired $29.95.

950BK R-C BRIDGE & R-C-L COMPARATOR
KIT $19.95. Wired $29.95.

320K RF/AF SIGNAL GENERATOR
KIT $19.95. Wired $29.95.

315K DELUXE SIGNAL GENERATOR
KIT $39.95. Wired $59.95.

147K Deluxe MULTI-SIGNAL TRACER
KIT $24.95. Wired $39.95

OTHER EICO MODELS

249K Deluxe PEAK-to-PEAK VTVM with 7½" METER & UNI-PROBE (pat. pend.) (similar to #232) **KIT $39.95.** Wired $59.95.
360K TV/FM SWEEP GENERATOR **KIT $34.95.** Wired $49.95.
352K BAR GENERATOR **KIT $14.95.** Wired $19.95.
630K CATHODE RAY TUBE CHECKER **KIT $17.95.** Wired $24.95.
377K SINE & SQUARE WAVE AUDIO GEN. (20-200,000 cps) **KIT $31.95.** Wired $49.95.
1171K DECADE RESISTANCE BOX (0-99,999 ohms in 1-ohm steps, ½% accuracy) **KIT $19.95.** Wired $24.95.
1180 DECADE CONDENSER BOX (100 mmf—0.111 mf in 100 mmf steps, 1% accuracy) **KIT $14.95.** Wired $19.95.
SCOPE DIRECT PROBE, DEMODULATOR PROBE, LOW CAPACITY PROBE, VTVM PEAK-to-PEAK PROBE, RF PROBE, HIGH VOLTAGE PROBES.

Warren Radio Company